CURRENT FISHERY STATISTICS NO. 2016

FISHERIES OF THE UNITED STATES 2016

September 2017

U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

National Marine Fisheries Service

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2017

NOAA FISHERIES PUBLICATIONS

Each year NOAA Fisheries produces three annual reports covering different aspects of the status of United States marine fisheries.

Status of Stocks is an annual report to Congress on the status of U.S. fisheries and is required by the Magnuson-Stevens Fishery Conservation and Management Act. This report, which is published each spring, summarizes the number of stocks on the overfished, overfishing, and rebuilt lists for U.S. federally managed fish stocks and stock complexes. The report also shows trends over time, discusses the value and contributions of our partners, and highlights how management actions taken by NOAA Fisheries have improved the status of U.S. federally managed stocks. For example, the 2016 report shows the number of stocks listed as subject to overfishing or overfished remains near an all-time low. https://www.fisheries.noaa.gov/feature-story/status-stocks-2016

Fisheries of the United States, published each fall, has been produced in its various forms for more than 100 years. It is the NOAA Fisheries yearbook of fishery statistics for the United States. It provides a snapshot of data, primarily at the national level, on U.S. recreational catch and commercial fisheries landings and value. In addition, data are reported on U.S. aquaculture production, the U.S. seafood processing industry, imports and exports of fishery-related products, and domestic supply and per capita consumption of fishery products. The focus is not on economic analysis, although value of landings, processed products, and foreign trade are included. https://www.fisheries.noaa.gov/feature-story/fisheries-united-states-2016

Fisheries Economics of the United States, published each fall, provides a detailed look at the economic performance of commercial and recreational fisheries and other marine-related sectors on a state, regional, and national basis. The economic impact of commercial and recreational fishing activities in the U.S. is also reported in terms of employment, sales, and value-added impacts. The report provides management highlights for each region that include a summary of stock status, updates on catch share programs, and other selected management issues. Economic performance indicators for catch share programs and non-catch share fisheries are reported. https://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2015/index

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Fisheries of the United States

2016

Current Fishery Statistics No. 2016

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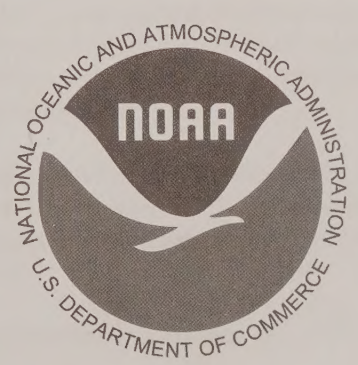

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Secretary of Commerce

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FISHERIES OF THE UNITED STATES, 2016

This publication is the annual National Marine Fisheries Service (NMFS) yearbook of fishery statistics for the United States for 2016. The report provides data on U.S. recreational catch and commercial fisheries landings and value as well as other aspects of U.S. commercial fishing. In addition, data are reported on the U.S. fishery processing industry, imports and exports of fishery-related products, and domestic supply and per capita consumption of fishery products.

SOURCES OF DATA

Information in this report came from many sources. Field offices of NMFS, with the generous cooperation of the coastal states and Regional Fishery Information Networks, collected and compiled data on U.S. commercial landings and processed fishery products.

The NMFS Fisheries Statistics Division in Silver Spring, MD, managed the collection and compilation of recreational statistics, in cooperation with various States and Interstate Fisheries Commissions, and tabulated and prepared all data for publication. Sources of other data appearing in this publication are: U.S. Census Bureau, U.S. Bureau of Labor Statistics, U.S. Department of the Interior, U.S. Department of Agriculture, and the Food and Agriculture Organization (FAO) of the United Nations.

Data in this publication are considered to be preliminary and are subject to revision as better information becomes available and updates are made by our regional partners. For the most current data please visit the data queries pages on our website: http://www.st.nmfs.noaa.gov/commercial-fisheries/index.

ACKNOWLEDGMENTS

The Fisheries Statistics Division takes this opportunity to thank states, industry, and foreign nations who provided the data that made this publication possible. Program leaders of the field offices were: Greg Power, Ted Hawes, Victor Vecchio and Joan Palmer for the New England and Middle Atlantic states; Scott Nelson, U.S. Geological Survey, for the Great Lakes states; David Gloeckner, Larry Beerkircher, and Jay Boulet for the South Atlantic and Gulf states; Bill Jacobson and Craig D'Angelo, for California; Kimberly Lowe, Valerie Chan, and Matthew Dunlap for Hawaii and the Pacific Islands; Julie Defilippi, Atlantic Coastal Cooperative Statistical Program, for Maine to Virginia; Brad Stenberg, Rick Pannell, Niels Leuthold, Rob Ames, and Robert Ryznar, Pacific Fisheries Information Network and Alaska Fisheries Information Network, for Oregon, Washington, and Alaska. We also wish to thank Stefania Vannuccini and Gabriella Laurenti of the Food and Agriculture Organization of the United Nations, and Brad McHale, Jackie Johnson-Cragg, and Dianne Stephan of the NOAA Office of Sustainable Fisheries.

NOTES

As in past issues of this publication, the units of quantity and value are defined as follows unless otherwise noted: U.S. landings are shown in round weight (except mollusks which are in meat weight); quantities shown for U.S. imports and exports are in product weight, as reported by the U.S. Bureau of the Census; the value of the U.S. domestic commercial landings is ex-vessel; in the Review section, deflated ex-vessel prices are shown. The deflated value was computed using the Gross Domestic Product Implicit Price Deflator using a base year 2009. The value for U.S. imports is generally the market value in the foreign (exporting) country and, therefore, excludes U.S. import duties, freight charges and insurance from the foreign country to the United States. The value for exports is generally the value at the U.S. port of export, based on the selling price, including inland freight, insurance, and other charges. Countries and territories shown in the U.S. foreign trade section are established for statistical purposes in the Tariff Schedules of the United States Annotated (International Trade Commission) and reported by the U.S. Bureau of the Census. Due to data availability, aquaculture production data lags the rest of the publication by 1 year.

The Fisheries Statistics Division wishes to provide the kinds of data sought by users of fishery statistics, and welcomes comments or suggestions that will improve this publication.

Address all comments or questions to:

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Review

U.S. COMMERCIAL LANDINGS

Commercial landings (edible and industrial) by U.S. fishermen at ports in the 50 states were 9.6 billion pounds or 4.3 million metric tons valued at $5.3 billion in 2016—a decrease of 145.6 million pounds (down 1.5%) and an increase of $108.7 million (up 2.1%) compared with 2015. Finfish accounted for 88 percent of the total landings, but only 43 percent of the value. The 2016 average ex-vessel price paid to fishermen was 55 cents per pound compared to 54 cents per pound in 2015.

Catches of Alaska pollock, Pacific whiting, and other Pacific groundfish that are processed at-sea aboard U.S. vessels in the northeastern Pacific are credited as "landings" to the state nearest the area of capture. Information is unavailable for landing port or percentage of catch transferred to transport ships for delivery to foreign ports. These at-sea processed fishery products, on a round (live) weight basis, was almost 1.6 million metric tons in 2016 and made up 36 percent of the total domestic landings in the 50 states.

Commercial landings by U.S. fishermen at ports outside the 50 states provided an additional 420.4 million pounds (190,707 metric tons) valued at $277 million. This was a decrease of 23 percent, or 128 million pounds (57,912 metric tons) in quantity and a decrease of $7.2 million (2.5%) in value compared with 2015. Most of these landings consisted of tuna landed in American Samoa and other foreign ports. Note that improved foreign port data collection in 2012 resulted in a more complete dataset, and thus higher numbers, than were historically available at the time of publication. Therefore, use caution when comparing data before 2012 to those from more recent years.

Edible fish and shellfish landings in the 50 states were 7.5 billion pounds (3.4 million metric tons) in 2016—a decrease of 266 million pounds (120 metric tons) compared with 2015.

Landings for reduction and other industrial purposes were over 2 billion pounds (947 thousand metric tons) in 2016—an increase of 6 percent compared with 2015.

AQUACULTURE

In 2015, estimated freshwater plus marine U.S. aquaculture production was 627.4 million pounds with a value of $1.4 billion, an increase of 19.6 million pounds (3.2%) in volume and $61.5 million (4.6%) in value from 2014. Atlantic salmon was the leading species for marine finfish aquaculture, with 47.5 million pounds produced an increase of 6.3 million pounds (15.2%). Atlantic salmon produced was valued at $87.7 million (up 15.2%). Oysters have the highest volume for marine shellfish production (35.2 million pounds, up 5.7%).

The United Nations Food and Agriculture Organization (FAO) estimates that nearly half of the world's consumption of seafood comes from aquaculture. Globally, Asia is the leading continent for aquaculture production volume with 89.3 percent of the global total of 76.6 million metric tons. The top five producing countries are in Asia: China, with 62.3 percent of the global total; India, 6.8 percent; Indonesia, 5.7 percent; Viet Nam, 4.5 percent; and Bangladesh, 2.7 percent. The United States ranks sixteenth in production.

U.S. MARINE RECREATIONAL CATCH

The 2016 U.S. marine recreational finfish catch, including fish kept and fish released (discarded) on the Atlantic, Gulf, and Pacific coasts (including Alaska, Hawaii and Puerto Rico), was an estimated 371.6 million fish taken on an estimated 63.1 million fishing trips. The harvest (fish kept or released dead) was estimated at 144.6 million fish weighing 181.6 million pounds.

WORLD LANDINGS

In 2015, the most recent year for which global data are available, world commercial fishery landings and aquaculture production were 169.2 million metric tons—an increase of 4.4 million metric tons compared with 2014. Aquaculture production increased by 2.9 million metric tons while fishery landings increased by 1.5 million tons.

China was the leading nation in both fishery landings and aquaculture production, accounting for 38.5 percent of the total harvest. Indonesia is the second leading producer with 6.3 percent. India was third with just under 5.9 percent. Vietnam was fourth with 3.5 percent. The United States was fifth with 3.2 percent.

PROCESSED PRODUCTS

The estimated value of the 2016 domestic production of edible and nonedible processed fishery products was $9.6 billion, down 1.8 billion (16.1%) from 2015. The value of edible products was $8.8 billion—down 1.6 billion (15.7%) compared with 2015. The value of industrial products was $794.6 million in 2016—down 196.1 million (19.8%) from 2015.

FOREIGN TRADE

The total import value of edible and nonedible fishery products was $35.8 billion in 2016—a decrease of $1.5 billion (4.3%) compared with 2015. Imports of edible fishery products (product weight) were 5.8 billion pounds valued at $19.5 billion in 2016. Volume increased 90.3 million pounds (1.6%), while value increased by $693.0 million (3.7%) compared with 2015. Imports of nonedible (i.e., industrial) products were $16.4 billion—a increase of $838.2 million (5.4%) compared with 2015.

Total export value of edible and nonedible fishery products was $28.0 billion in 2016—a decrease of $409.8 million (1.4%) compared with 2015. United States firms exported 2.9 billion pounds of edible products valued at $5.4 billion—volume decreased 214.5 million pounds (6.8%) and value decreased $186.1 million (3.3%) compared with 2015. Exports of nonedible products were valued at $22.6 billion, which is $223.7 million (1.0%) less than 2015.

SUPPLY

The U.S. supply of edible fishery products (domestic landings plus imports, round weight equivalent, minus exports) was 12.0 billion pounds in 2016—essentially unchanged from 2015. The supply of industrial fishery products was 860 million pounds in 2016—an increase of 116 million pounds compared with 2015.

PER CAPITA CONSUMPTION

Estimated U.S. per capita consumption of fish and shellfish was 14.9 pounds (edible meat) in 2016. This total was a decrease of 0.6 pounds from the 15.5 pounds consumed in 2015.

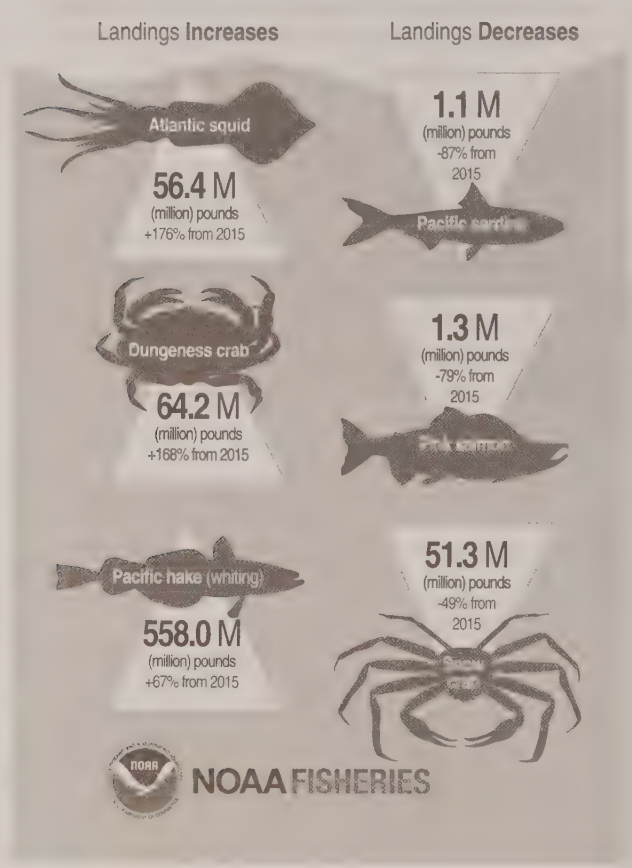
CONSUMER EXPENDITURES

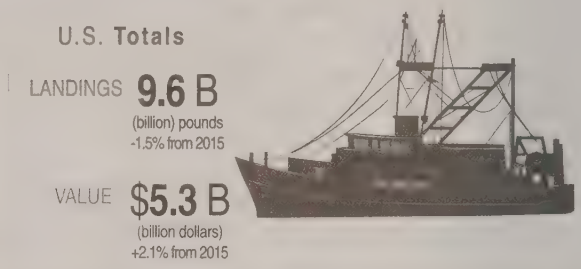
U.S. consumers spent an estimated $93.2 billion for fishery products in 2016. The 2016 total includes $63.4 billion in expenditures at food service establishments (restaurants, carry-outs, caterers, etc.); $29.8 billion in retail sales for home consumption; and $75.8 million for industrial fish products. By producing and marketing a variety of fishery products for domestic and foreign markets, the commercial marine fishing industry contributed $46.7 billion (in value added) to the U.S. Gross National Product.

PRICES

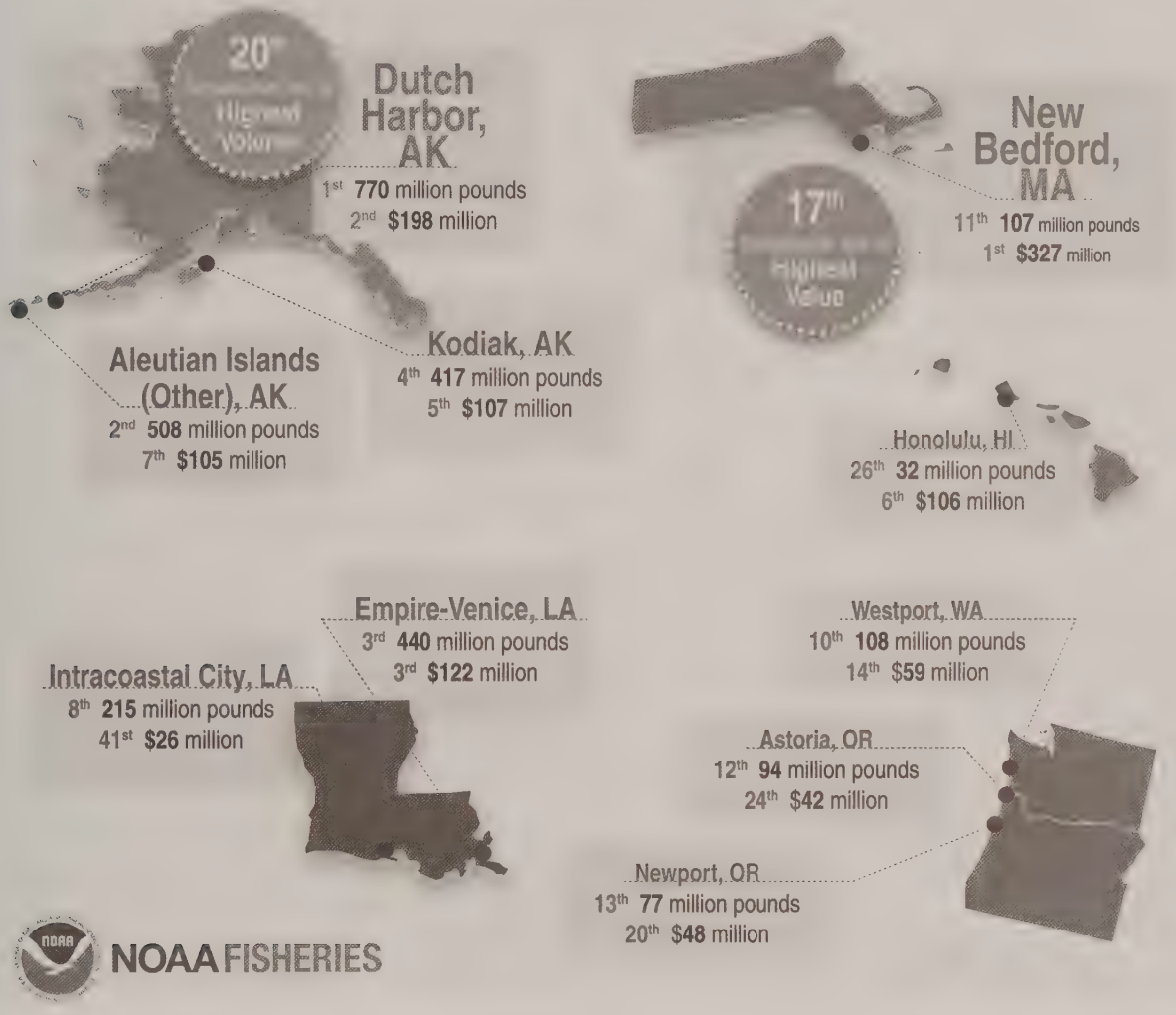
The 2016 annual ex-vessel price index for edible fish decreased by 0.8 percent. Shellfish decreased by 3.7 percent and industrial products increased 1.2 percent compared with 2015. Ex-vessel price indices increased for 17 out of 32 species groups being tracked, decreased for 13 species groups, and remained unchanged for 2 product groups. The coho salmon price index had the largest increase (61.2%) while the snow crab price index showed the largest decrease (42.5%).

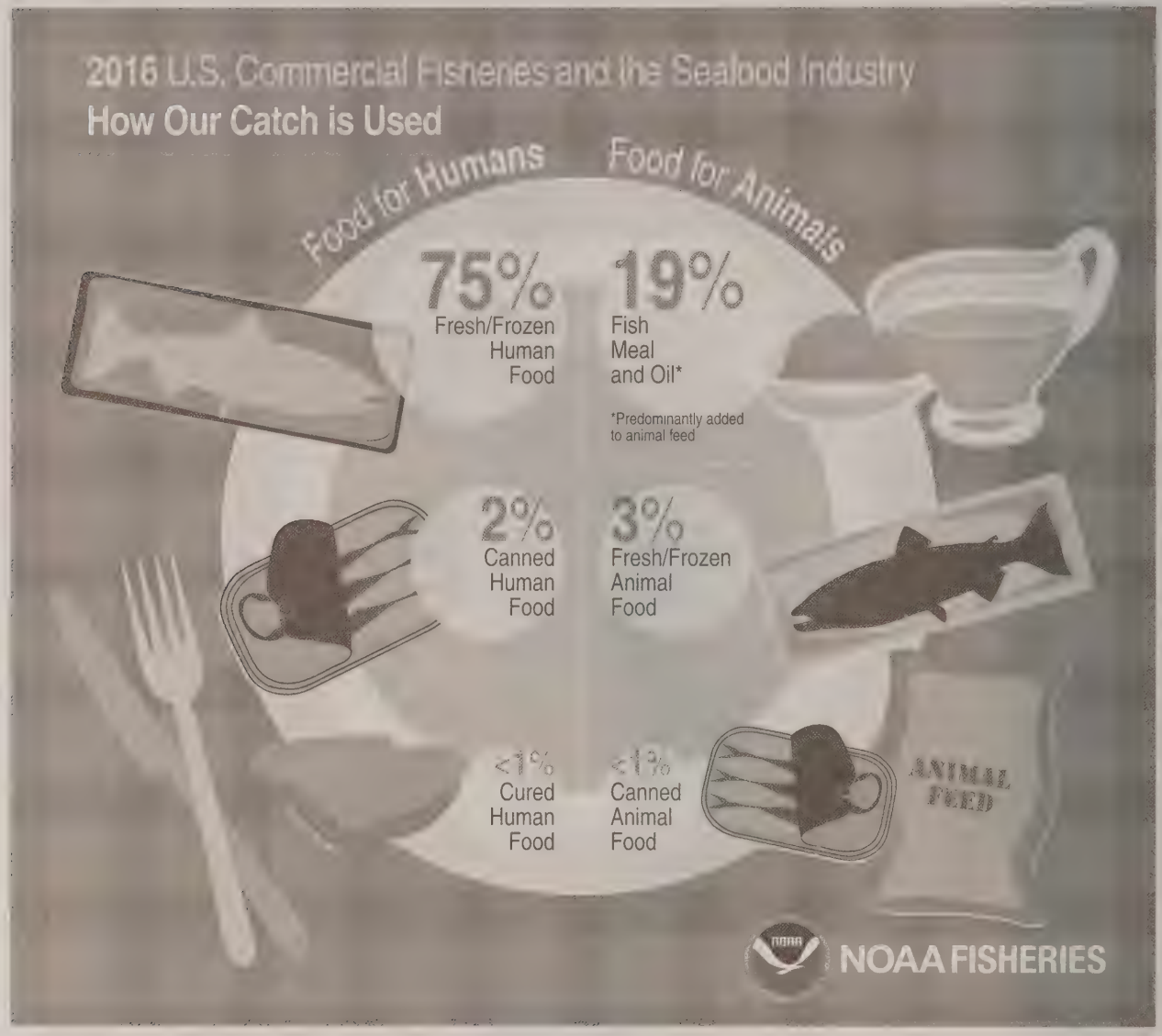
2016 U.S. Commercial Fisheries and the Seafood Industry Highlights



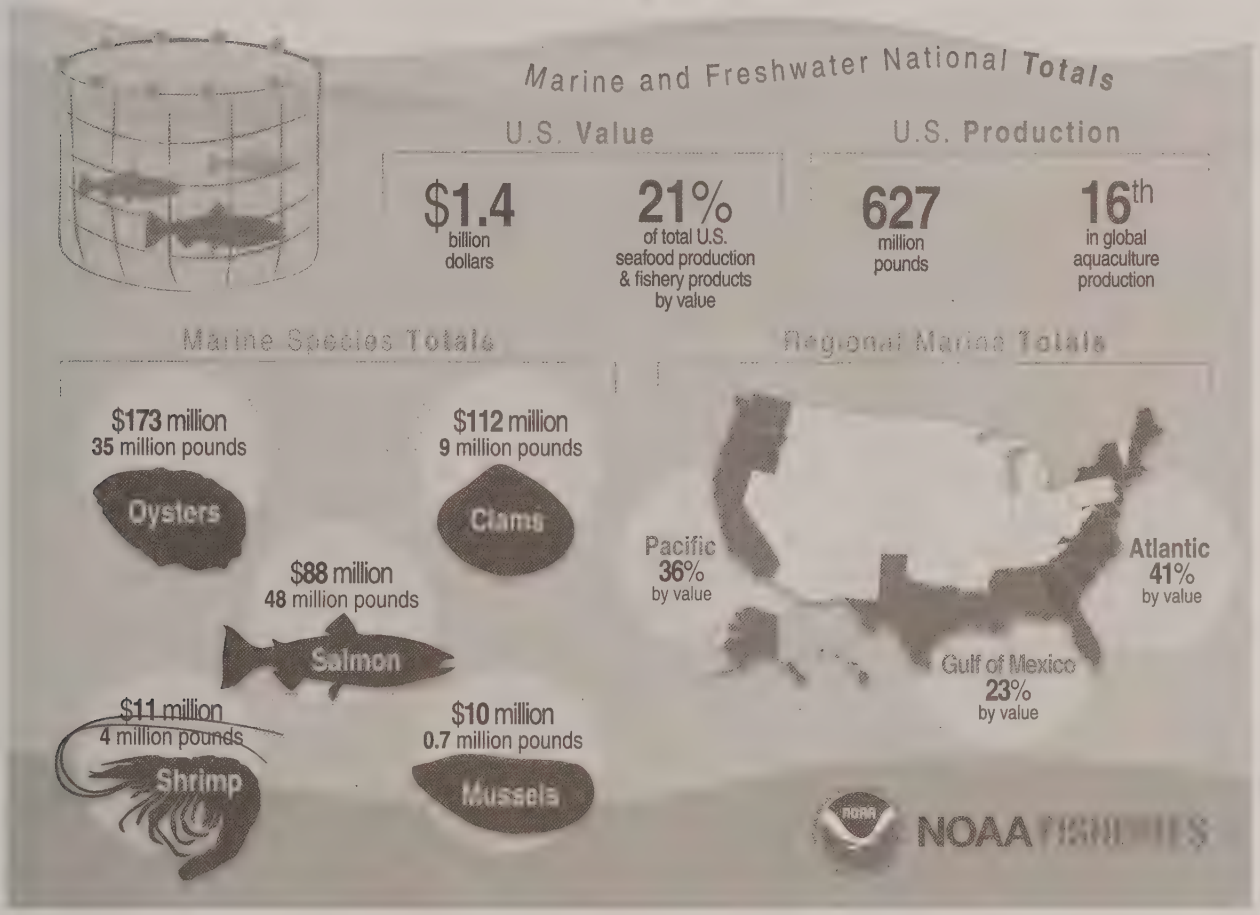


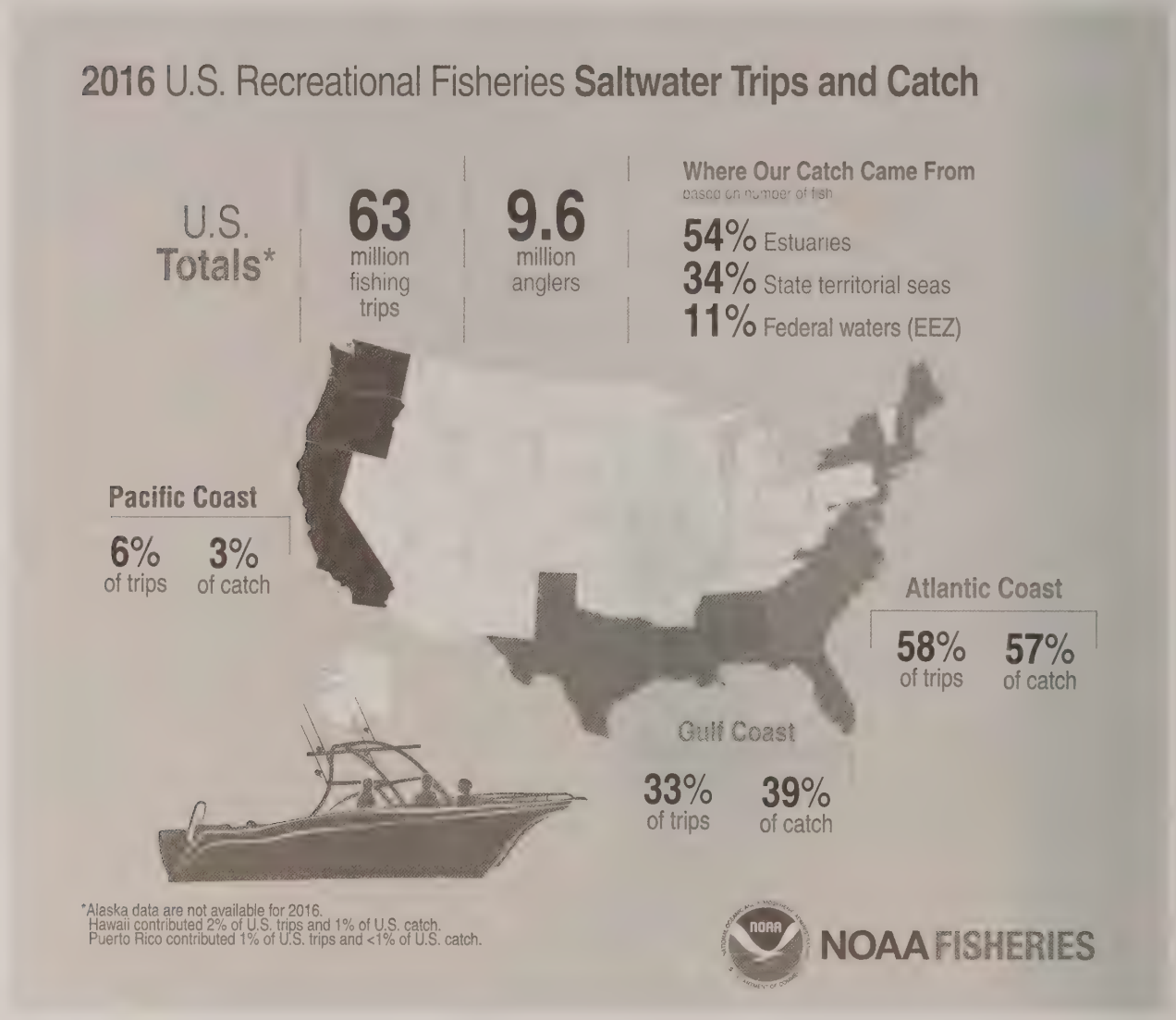
2016 U.S. Commercial Fisheries and the Seafood Industry
Top Ports by Volume and Value of Seafood Landed




2016 U.S. Commercial Fisheries and the Seafood Industry
How Our Catch is Used
Food for Humans
Food for Animals
75%
Fresh/Frozen Human Food
19%
Fish Meal and Oil*
*Predominantly added to animal feed
2%
Canned Human Food
3%
Fresh/Frozen Animal Food
<1%
Cured Human Food
<1%
Canned Animal Food
ANIMAL FEED
NOAA FISHERIES

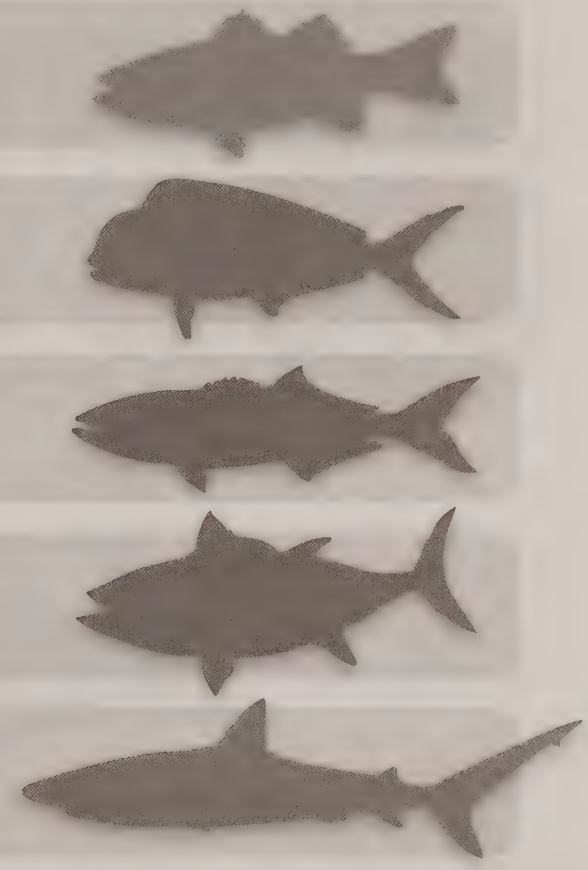
2015 Aquaculture Production Highlights




2016 U.S. Recreational Fisheries Saltwater Trips and Catch
U.S. Totals*
63 million fishing trips
9.6 million anglers
Where Our Catch Came From
based on number of fish
54% Estuaries
34% State territorial seas
11% Federal waters (EEZ)
Pacific Coast
6% of trips
3% of catch
Atlantic Coast
58% of trips
57% of catch
Gulf Coast
33% of trips
39% of catch
*Alaska data are not available for 2016.
Hawaii contributed 2% of U.S. trips and 1% of U.S. catch.
Puerto Rico contributed 1% of U.S. trips and <1% of U.S. catch.
NOAA FISHERIES

2016 U.S. Recreational Fisheries Top Species by Pounds Harvested*

Striped bass	20 million pounds	1.6 million fish
Dolphinfish	11 million pounds	1.2 million fish
Bluefish	10 million pounds	4.6 million fish
Yellowfin tuna	9 million pounds	0.3 million fish
Sharks	3 million pounds	0.2 million fish



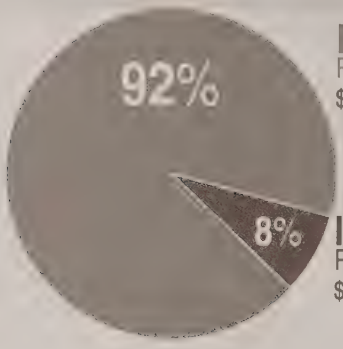
NOAA FISHERIES

*Alaska data are not available for 2016.

2016 Value of Processed Fisheries Products

(Processed from domestic catch and imported products)

TOTAL for Edible and Industrial Products: **$9.55 billion**



Edible Products $8.76 billion

Frozen	64%	$6.09 billion
Fresh	16%	$1.53 billion
Canned	11%	$1.02 billion
Cured	1%	$0.12 billion

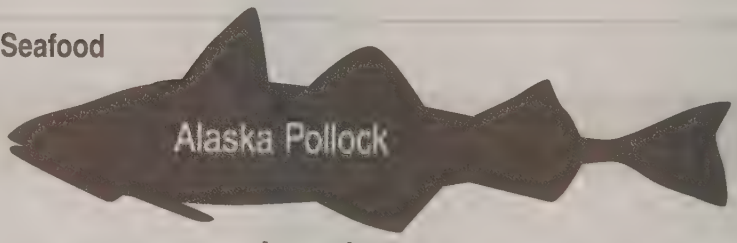
Industrial Products $0.79 billion

Meal & Oil	4%	$0.38 billion
Bait & Animal Food	2%	$0.23 billion
Other	2%	$0.18 billion

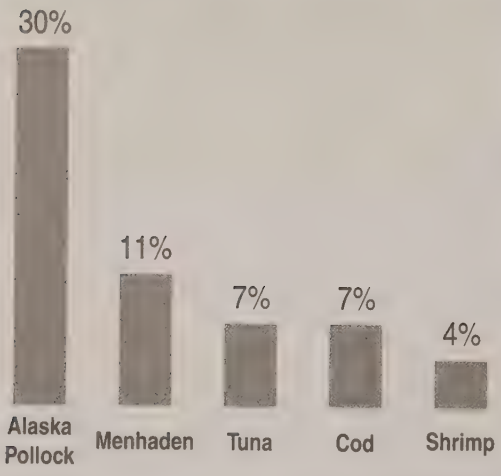
Top Species Processed for Seafood

30% by volume

21% by value

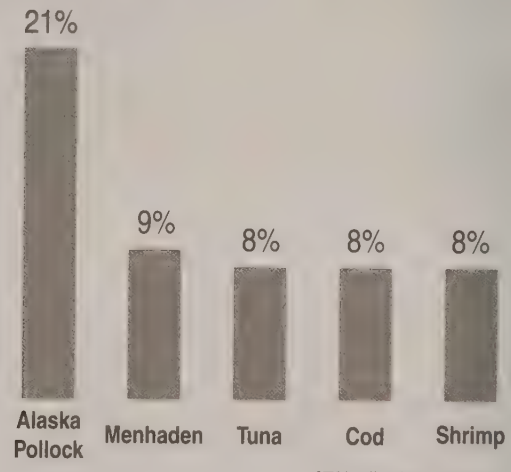


by volume



41% all other species

by value



47% all other species

2016 U.S. Trade with East Asia*

50% of U.S. edible imports come from East Asia

Total Pounds and Value of U.S. Edible Imports and Exports

Edible IMPORTS		Edible EXPORTS		TRADE DEFICIT
3.35 billion pounds	$9.63 billion	1.64 billion pounds	$2.65 billion	-$6.98 billion

Pounds and Value by Category of U.S. Edible Imports and Exports

Pounds (KG - kilograms)

Edible Exports

Whole Finfish Fresh/Frozen	60% / 44%	0.98 billion pounds / $1.17 billion
Surimi	21% / 14%	0.34 billion pounds / $0.36 billion
Caviar & Roe	4% / 9%	0.58 billion pounds / $0.25 billion
Lobster	2% / 8%	0.27 billion pounds / $0.22 billion
Crab & Crabmeat	2% / 6%	0.27 billion pounds / $0.16 billion
Other Edible	12% / 19%	2.04 billion pounds / $0.49 billion

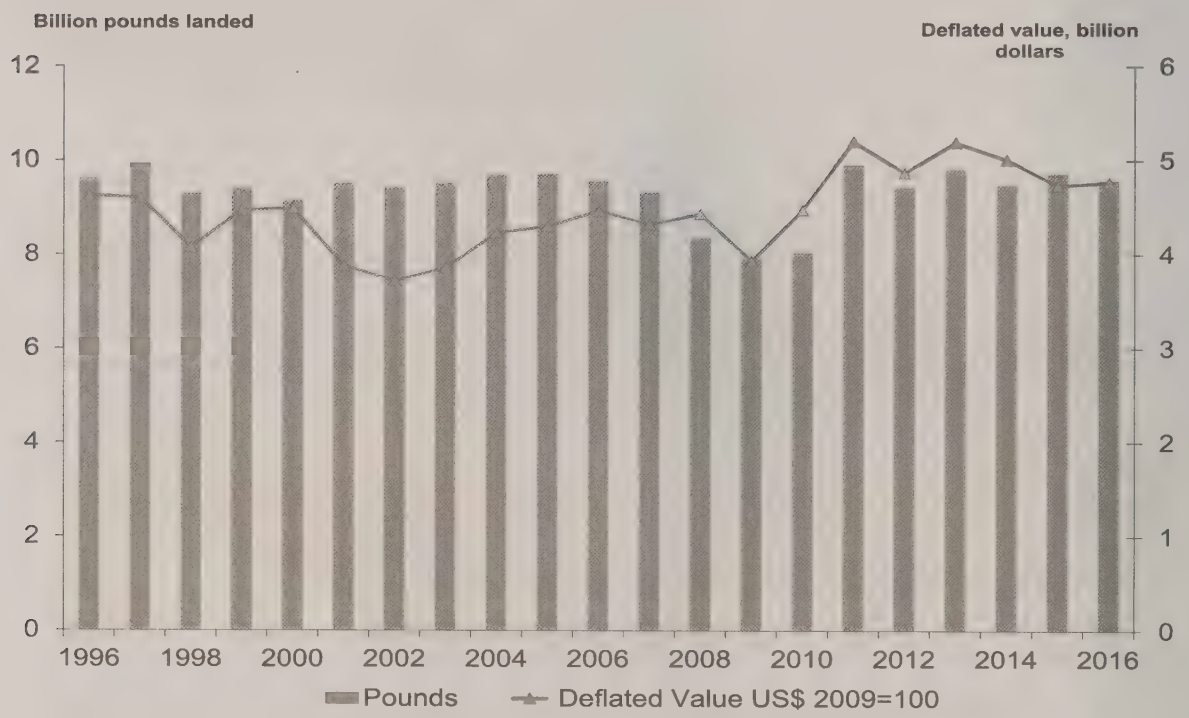
Edible Imports

Shrimp, Fresh & Frozen	30% / 46%	1.01 billion pounds / $4.41 billion
Fresh & Frozen Fillet	29% / 23%	1.00 billion pounds / $2.18 billion
Canned Products	16% / 13%	0.54 billion pounds / $1.26 billion
Whole Finfish Fresh/Frozen	11% / 7%	0.36 billion pounds / $0.63 billion
Other Edible	15% / 13%	0.50 billion pounds / $1.20 billion

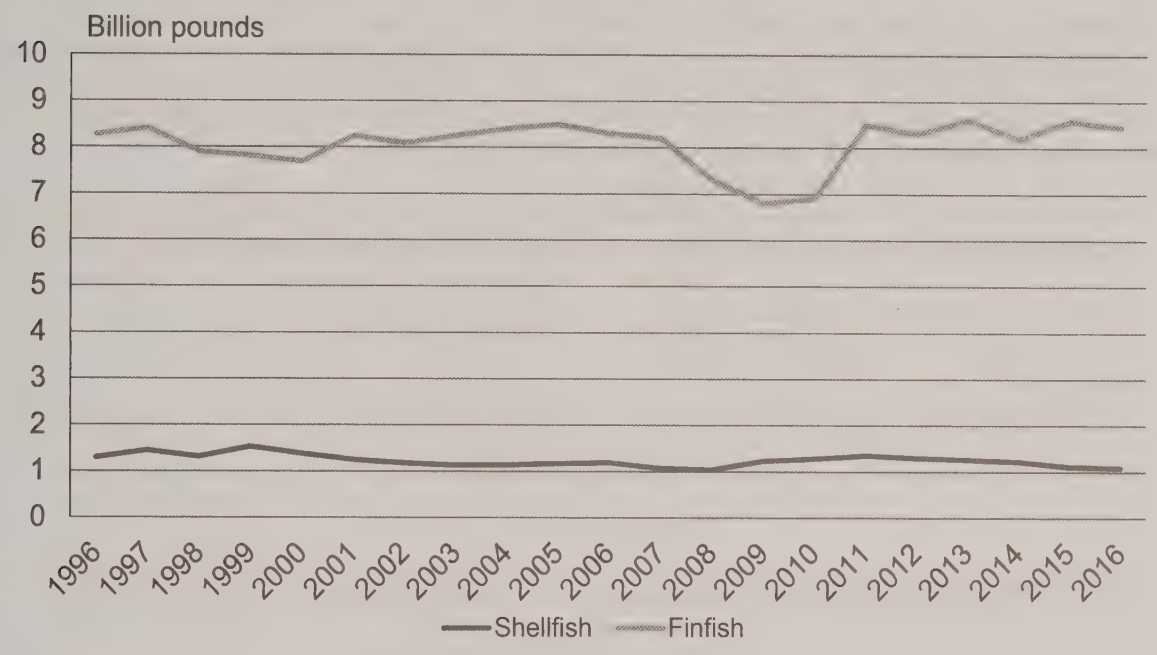
***Countries Included:**

India, Pakistan, Bangladesh, Sri Lanka, Thailand, Vietnam, Laos, Cambodia, Malaysia, Singapore, Indonesia, Philippines, Maldive Is., China, South Korea, Taiwan, Japan

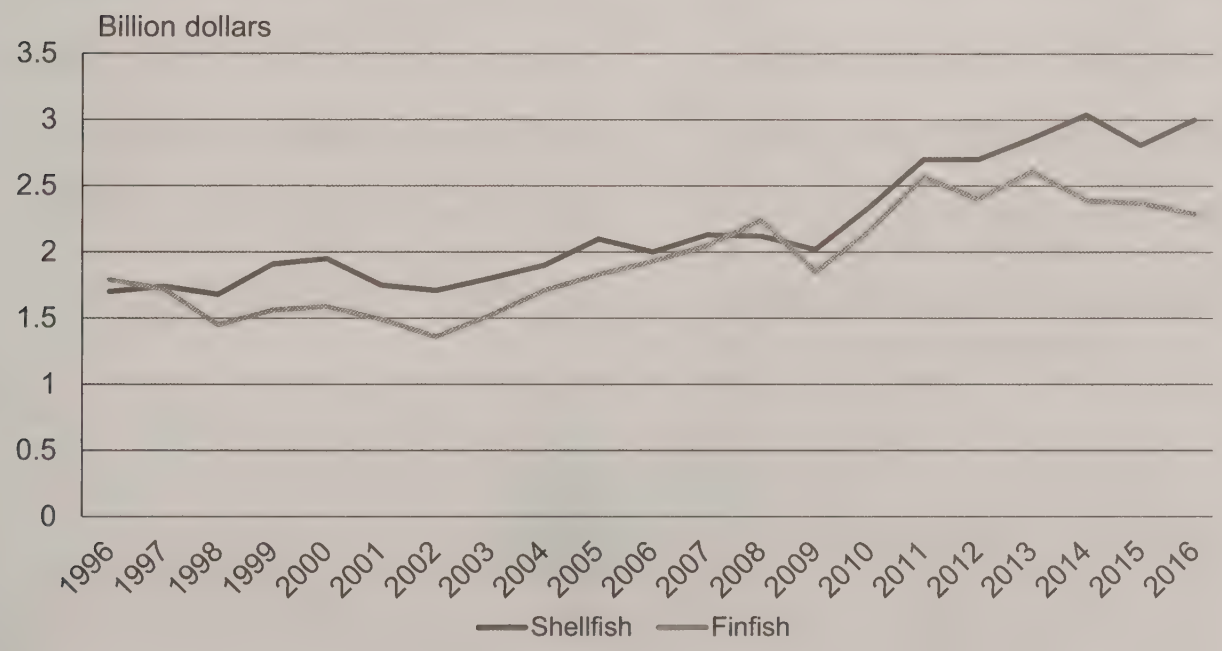
Commercial Landings, 1996-2016 National Landings and Deflated Value



Volume of U.S. Domestic Finfish and Shellfish Landings, 1996-2016



Value of U.S. Domestic Finfish and Shellfish Landings, 1996-2016



Alaska led all states in volume with landings of 5.6 billion pounds, followed by: Louisiana, 1.2 billion pounds; Washington, 551.9 million pounds; Virginia, 363.3 million pounds; and Mississippi, 304.0 million pounds.

Alaska led all states in value of landings with $1.6 billion, followed by: Maine, $633.6 million; Massachusetts, $552.2 million; Louisiana, $407.2 million; and Washington, $321.0 million.

Dutch Harbor, Alaska, was the leading U.S. port in quantity of commercial fishery landings, followed by: Aleutian Islands (Other), Alaska; Empire-Venice, Louisiana; Kodiak, Alaska; and Reedville, VA.

New Bedford, Massachusetts was the leading U.S. port in terms of value, followed by: Dutch Harbor, Alaska; Empire-Venice, Louisiana; Naknek, Alaska; and Kodiak, Alaska.

Tuna landings by U.S.-flag vessels at ports outside the continental United States amounted to 418.5 million pounds.

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Major U.S. Domestic Species Groups Landed in 2016

Ranked by Volume and Value

Volume of Landings

Rank	Species	Thousand Pounds
1	Pollock	3,360,760
2	Menhaden	1,727,502
3	Cod	711,791
4	Flatfish	590,613
5	Hakes	576,086
6	Salmon	561,036
7	Crabs	317,348
8	Shrimp	270,787
9	Sea Herring	191,550
10	Rockfishes	165,039

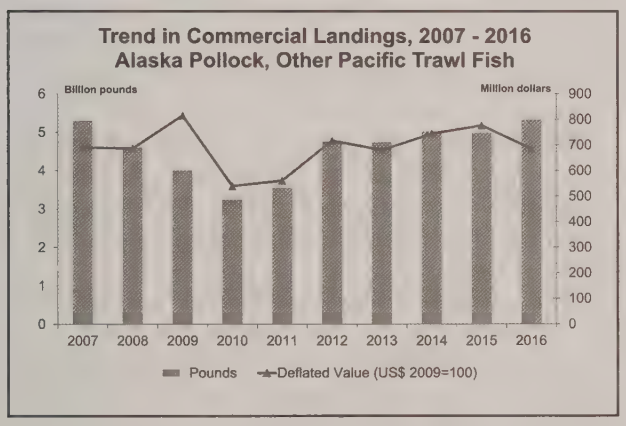
Value of Landings

Rank	Species	Thousand Dollars
1	Lobsters	722,615
2	Crabs	704,288
3	Scallops	488,051
4	Shrimp	483,430
5	Pollock	423,575
6	Salmon	420,233
7	Flatfish	268,399
8	Clams	234,856
9	Oysters	217,170
10	Cod	177,540

ALASKA POLLOCK AND OTHER PACIFIC TRAWL FISH

U.S. landings of Pacific trawl fish (Pacific cod, flounders, hake, Pacific ocean perch, Alaska pollock, and rockfishes) were over 5.3 billion pounds valued at nearly $762.9 million—an increase of nearly 7 percent in quantity and a decrease of almost 11 percent in value compared with 2015.

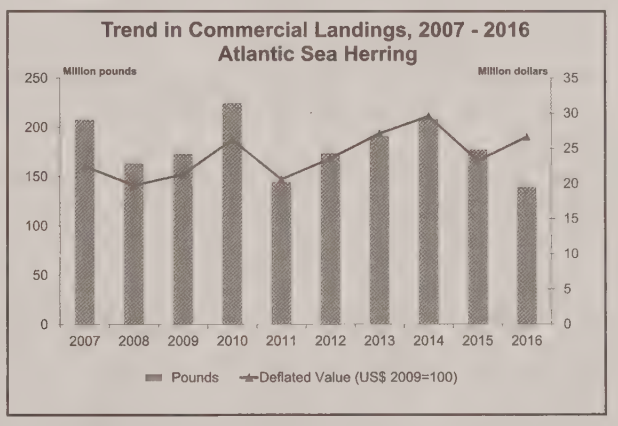
Landings of Alaska pollock (3.4 billion pounds) increased from 2015 and were 336.2 million pounds over their 2011-2015 5 - year average. Landings of Pacific cod were 708.6 million pounds — an increase of more than 1 percent from 699.1 million in 2015. Pacific hake (whiting) landings were 558 million pounds (up more than 67 percent) valued at $46.6 million (up 85 percent) compared to 2015. Landings of rockfishes were over 42.3 million pounds (down almost 12 percent) and valued at nearly $16.8 million (down nearly 13 percent) compared to 2015.



SEA HERRING

U.S. commercial landings of sea herring were 191.5 million pounds valued at over $35.2 million—a decrease of 55 million pounds (over 22 percent), but an increase of more than $2.3 million (7 percent) compared with 2015. Landings of Atlantic sea herring were 139.3 million pounds valued at almost $29.7 million—a decrease of 38.1 million pounds (more than 21 percent), but an increase of $4.1 million (16 percent) compared with 2015.

Landings of Pacific sea herring were 52.3 million pounds valued at $5.5 million—a decrease of nearly 16.9 million pounds (24 percent), and nearly $1.8 million (over 24 percent) compared with 2015. Alaska landings accounted for 99 percent of the Pacific coast with nearly 51.8 million pounds valued at $5.4 million—a decrease of 16.6 million pounds (over 24 percent) and $1.7 million (24 percent) compared with 2015.



ANCHOVIES

U.S. landings of anchovies were 18.9 million pounds—a decrease of 19 million pounds (50 percent) compared with 2015. One percent of all landings were used for animal food or reduction and 99 percent were used for bait. The U.S. imports all edible anchovies.

HALIBUT

U.S. landings of Atlantic and Pacific halibut were 25.2 million pounds valued at $127 million—an increase of 627,000 pounds (almost 3 percent) and $7.7 million (more than 6 percent) compared with 2015. The Pacific fishery accounted for all but 285,000 pounds of the 2016 total halibut catch. The average ex-vessel price per pound in 2016 was $5.05 compared with $4.86 in 2015.

JACK MACKEREL

California accounted for 57 percent, Oregon for 3 percent, and Washington nearly 40 percent of the U.S. landings of jack mackerel in 2016. Total landings were 800,000 pounds valued at $62,000—a decrease of almost 2.2 million pounds (73 percent) and $157,000 (more than 71 percent) compared with 2015. The 2016 average ex-vessel price per pound was 8 cents.

MACKEREL, ATLANTIC

U.S. landings of Atlantic mackerel were nearly 11.8 million pounds valued at nearly $3.1 million—a decrease of 605,000 pounds (nearly 5 percent) and $900,000 (almost 23 percent) compared with 2015. Massachusetts with nearly 9.9 million pounds and New Jersey with 306,000 pounds accounted for almost 87 percent of the total landings. The average

ex-vessel price per pound in 2016 was 26 cents compared with 32 cents in 2015.

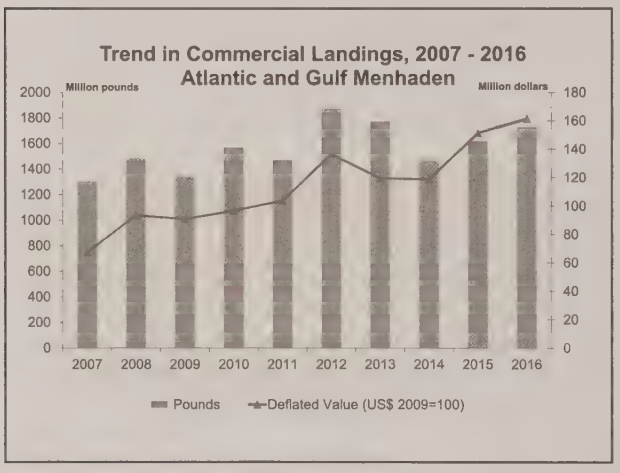
MACKEREL, CHUB

Landings of chub mackerel were 4.6 million pounds valued at $594,000—a decrease of 9.9 million pounds (over 68 percent), and $1.1 million (over 65 percent) compared with 2015. California accounted for over 84 percent of the total landings. The average ex-vessel price in 2016 was 13 cents compared with 12 cents in 2015.

MENHADEN

The U.S. menhaden landings were almost 1.7 billion pounds valued at $179.8 million—an increase of almost 109.6 million pounds (nearly 7 percent), and over $13.3 million (8 percent) compared with 2015. Landings decreased by 72.5 million pounds (almost 17 percent) in the Atlantic states, while increasing by 182.1 million pounds (more than 15 percent) in the Gulf states compared with 2015. Landings along the Atlantic coast were more than 363.5 million pounds valued at $36.5 million. Gulf region landings were 1.4 billion pounds valued at $143.3 million.

Menhaden are used primarily for the production of meal, oil, and solubles, while small quantities are used for bait.



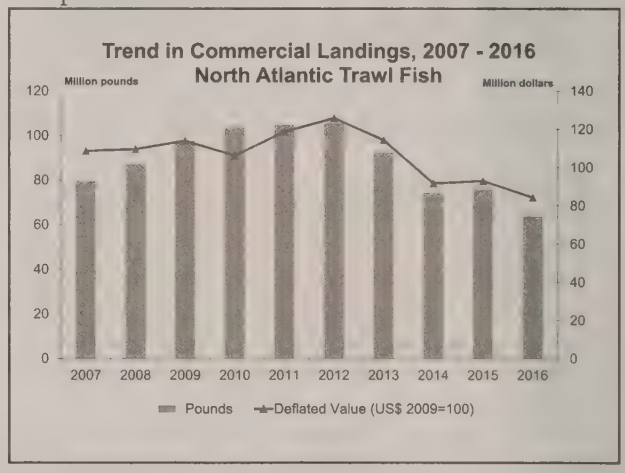
million—a decrease of 12.2 million pounds (more than 16 percent), and nearly $6.3 million (almost 7 percent) compared with 2015. Of these species, flounders led in total value in the North Atlantic, accounting for more than 45 percent of the total; followed by haddock, 15 percent; and whiting (silver hake), nearly 12 percent.

The 2016 landings of Atlantic cod were over 3.2 million pounds valued at more than $6.1 million—a decrease of 149,000 pounds (more than 4 percent), and $307,000 (almost 5 percent) compared with 2015. The ex-vessel price per pound in 2016 was $1.91, unchanged from 2015.

Landings of yellowtail flounder were more than 1.2 million—a decrease of 890,000 pounds (almost 42 percent) from 2015 and were over 65 percent lower than the 5-year average.

Haddock landings decreased to 11.1 million pounds (down over 7 percent) but increased to over $13.3 million (up 5 percent) compared to 2015.

North Atlantic pollock landings were nearly 5.7 million pounds valued at almost $6.4 million—a decrease of over 1 million pounds (over 15 percent), and almost $1.2 million (more than 15 percent) compared with 2015.



NORTH ATLANTIC TRAWL FISH

Landings of butterfish, Atlantic cod, cusk, flounders (winter/blackback, summer/fluke, yellowtail and other), haddock, red and white hake, ocean perch, pollock and whiting (silver hake) in the North Atlantic (combination of New England and Middle Atlantic Regions) were 62 million pounds valued at $89

PACIFIC SALMON

U.S. commercial landings of salmon were 561 million pounds valued at over $420.2 million—a decrease of 505 million pounds (more than 47 percent) and nearly $39.9 million (almost 9 percent) compared with 2015. Alaska accounted for almost 97 percent of total landings; Washington, nearly 3 percent; California,

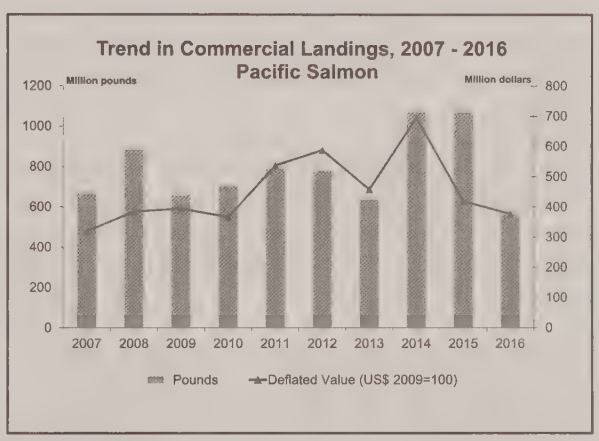
Oregon, and the Great Lakes combined accounted for less than 1 percent of the catch. Sockeye salmon landings were 287.3 million pounds valued at over $250.2 million—a decrease of nearly 2.8 million pounds (1 percent), but an increase of $50.2 million (25 percent) compared with 2015. Chinook salmon landings decreased to 11.9 million pounds—down almost 6.2 million pounds (34 percent) from 2015. Pink salmon landings were 130.3 million pounds-a decrease of 477.2 million (almost 79 percent); chum salmon landings were 101.4 million, a decrease of nearly 23.8 million (19 percent); and coho salmon increased to 30.3 million—an increase of 5 million (nearly 20 percent) compared with 2015.

Alaska landings were almost 542.6 million pounds valued at almost $380.5 million—a decrease of 498.2 million pounds (nearly 48 percent) and almost $32.7 million (nearly 8 percent) compared with 2015. The distribution of Alaska salmon landings by species in 2016 was: sockeye, 287.1 million pounds (nearly 53 percent); pink, 130.3 million pounds (24 percent); chum, 92.5 million pounds (17 percent); coho, 27.4 million pounds (5 percent); and chinook, nearly 5.3 million pounds (1 percent). The average price per pound for all species in Alaska was 70 cents in 2016—an increase of 30 cents from 2015.

Washington salmon landings were nearly 15.8 million pounds valued at $26.1 million—a decrease of 4.8 million pounds (23 percent) and $780,000 (nearly 3 percent) compared with 2015. The biennial fishery for pink salmon went from nearly 2.8 million in 2015 to 0 pounds in 2016. Washington landings of chum salmon were 8.8 million (down almost 8 percent); followed by chinook, 4.2 million pounds (down more than 42 percent); coho, nearly 2.7 million pounds (up almost 360 percent); and sockeye, 130,000 pounds (down more than 67 percent). The average ex-vessel price per pound for all species in Washington increased from $1.30 in 2015 to $1.64 in 2016.

Oregon salmon landings were 1.8 million pounds valued at almost $8.3 million—a decrease of 1.3 million pounds (nearly 42 percent) and almost $3.6 million (30 percent) compared with 2015. Chinook salmon landings were 1.6 million pounds valued at $7.9 million; coho landings were 216,000 pounds valued at $396,000; sockeye landings were 2,000 pounds valued at $6,000; pink landings were less than 500 pounds valued at less than $500; and chum landings were less than 500 pounds valued at less than $500. The average ex-vessel price per pound for Chinook salmon in Oregon increased from $3.94 in 2015 to $4.93 in 2016.

California salmon landings were 709,000 pounds valued at nearly $5.3 million— a decrease of 643,000 pounds (almost 48 percent) and $2.9 million (35 percent) compared with 2015. Chinook salmon were the principal species landed in the state. The average ex-vessel price per pound paid to fishermen in 2016 was $7.44 compared with $6.02 in 2015.



SABLEFISH

U.S. commercial landings of sablefish were almost 33.6 million pounds valued at nearly $116.9 million—a decrease of 1.8 million pounds (5 percent), but an increase of $3 million (almost 3 percent) compared with 2015. Landings decreased in Alaska to 21.8 million pounds—a decrease of almost 9 percent compared with 2015. Landings increased in Washington to 2.4 million pounds (up 1 percent) and almost $7.5 million (up more than 3 percent). The 2016 Oregon catch was 5.5 million pounds (up 9 percent), and $15.1 million (up over 18 percent) compared with 2015. California landings of 3.9 million pounds and $8.8 million represent a decrease of more than 4 percent in quantity and nearly 1 percent in value from 2015. The average ex-vessel price per pound in 2016 was $3.48 compared with $3.22 in 2015.

TUNA

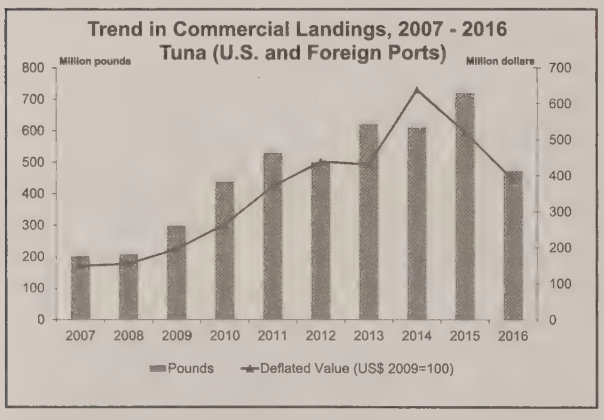
Landings of tuna by U.S. fishermen at ports in the United States, American Samoa, other U.S. territories, and foreign ports were 474.5 million pounds valued at nearly $432.8 million—a decrease of almost 129.7 million pounds (more than 21 percent), but an increase of $12.5 million (3 percent) compared with 2015. The average ex-vessel price per pound of all species of tuna in 2016 was 91 cents compared with 70 cents in 2015.

Bigeye landings in 2016 were 23.8 million pounds—a decrease of almost 2.1 million pounds (8 percent) compared with 2015. The average ex-vessel price per pound was $3.44 in 2016 compared to $3.17 in 2015.

Skipjack landings were 377.3 million pounds—a decrease of 121.4 million pounds (24 percent) compared with 2015. The average ex-vessel price per pound was 66 cents in 2016 compared to 51 cents in 2015.

Yellowfin landings were 45.4 million pounds—a decrease of 4.2 million pounds (almost 9 percent) compared with 2015. The average ex-vessel price per pound was $1.06 in 2016 compared with $0.82 in 2015.

Bluefin landings were almost 2.7 million pounds—an increase of 781,000 pounds (more than 41 percent) compared with 2015. The average ex-vessel price per pound in 2016 was $5.26 compared with $4.67 in 2015.



CLAMS

Landings of all species yielded 88.9 million pounds of meats valued at $234.9 million—an increase of 2.8 million pounds (3 percent) and almost $28.6 million (nearly 14 percent) compared with 2015. The average ex-vessel price per pound in 2016 was $2.65 compared with $2.40 in 2015.

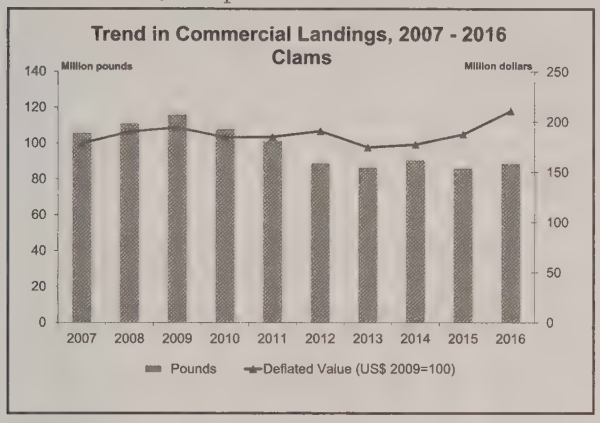
Surf clams yielded 41.9 million pounds of meats valued at $31.6 million—an increase of more than 1.2 million pounds (3 percent) and almost $1.2 million (nearly 4 percent) compared with 2015. Massachusetts was the leading state with 19.8 million pounds (up nearly 3 percent compared with 2015); followed by New Jersey, more than 16.5 million pounds (down 10 percent); and New York, nearly 3.7 million pounds (up 200 percent). The average ex-vessel price per pound of meats was 75 cents in 2016, unchanged from 2015.

The ocean quahog fishery produced 30.7 million pounds of meats valued at $26.3 million—an increase of 738,000 pounds (more than 2 percent) and nearly $2.6 million (nearly 11 percent) compared with 2015. New Jersey had landings of 18.1 million pounds (up almost 12 percent compared with 2015) valued at $16.3 million (up more than 22 percent) while Massachusetts production was over 12.2 million pounds (down 8 percent) valued at nearly $8.7 million (down 4 percent). Together, New Jersey and Massachusetts accounted for 99 percent of total ocean quahog production in 2016. The average ex-vessel price per pound of meats increased from 79 cents in 2015 to 85 cents in 2016.

The hard clam fishery produced 8.7 million pounds of meats valued at $61.9 million—an increase of over 1.2 million pounds (more than 16 percent) and $4.8 million (more than 8 percent) compared with 2015. Landings in the New England region were almost 1.4 million pounds of meats (down almost 8 percent); Middle Atlantic, 6.2 million pounds (up 20 percent); and the South Atlantic region, more than 1.1 million pounds (up almost 33 percent). The average ex-vessel price per pound of meats decreased from $7.63 in 2015 to $7.11 in 2016.

Soft clams yielded 2.5 million pounds of meats valued at nearly $24.8 million—a decrease of 30,000 pounds (1 percent) and $4.8 million (16 percent) compared with 2015. Maine was the leading state with 1.6 million pounds of meats (down 17 percent), followed by Massachusetts, 669,000 pounds (up 61 percent), and Maryland, 306,000 pounds (up 320 percent).

The average ex-vessel price per pound of meats was $9.72 in 2016, compared with $11.46 in 2015.



CRABS

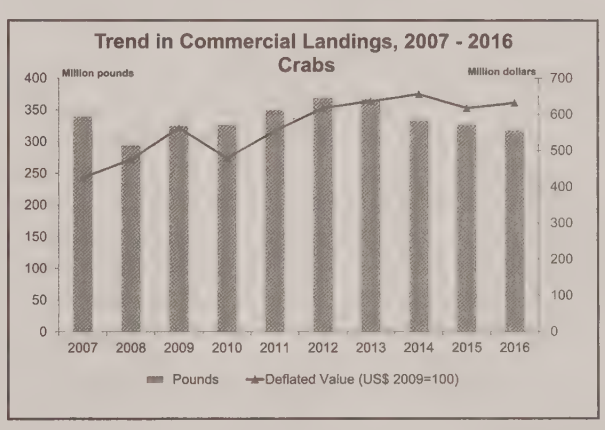
Landings of all species of crabs were 317.3 million pounds valued at $704.3 million—a decrease of more than 9 million pounds (3 percent), but an increase of almost $25.6 million (nearly 4 percent) compared with 2015.

Hard blue crab landings were 157.5 million pounds valued at $213.8 million—a decrease of almost 1.2 million pounds (1 percent) and $21 million (nearly 9 percent) compared with 2015. Louisiana landed more than 24 percent of the total U.S. landings followed by: Maryland, 22 percent; Virginia, more than 17 percent; and North Carolina, 16 percent. Hard blue crab landings in the South Atlantic, with almost 34.7 million pounds, decreased 15 percent; and the Gulf region, with almost 49.5 million pounds, decreased almost 1 percent. The Middle Atlantic region, with over 73.3 million pounds valued at nearly $114.8 million, had an increase of almost 5.4 million pounds (nearly 8 percent) compared with 2015. The average ex-vessel price per pound of hard blue crabs was $1.36 in 2016 compared with $1.48 in 2015.

Dungeness crab landings were 64.2 million pounds valued at $222.6 million—an increase of over 40.2 million pounds (almost 168 percent) and $110.6 million (99 percent) compared with 2015. California landings of almost 26.7 million pounds (up 760 percent from 2015) led all states with almost 42 percent of the total landings. Washington landings were 19.1 million pounds (up almost 28 percent) or nearly 30 percent of the total landings. Oregon landings were 15.7 million pounds (up nearly 590 percent) and Alaska landings were nearly 2.7 million pounds (down 25 percent). The average ex-vessel price per pound was $3.47 in 2016 compared with $4.68 in 2015.

U.S. landings of king crab were almost 14.6 million pounds valued at $104.7 million—a decrease of 2.9 million pounds (nearly 17 percent), but an increase of $6 million (6 percent) compared with 2015. The average ex-vessel price per pound in 2016 was $7.17 compared with $5.63 in 2015.

Snow crab landings were almost 39.6 million pounds valued at $79.9 million—a decrease of over 41.2 million pounds (51 percent) and $53.8 million (over 40 percent) compared with 2015. The average ex-vessel price per pound was $2.02 in 2016, up from $1.65 in 2015.



LOBSTER, AMERICAN

American lobster landings were almost 158.6 million pounds valued at $666.7 million—an increase of 12.6 million pounds (9 percent) and $49.5 million (8 percent) compared with 2015. Maine led in landings for the 35th consecutive year with 132 million pounds valued at nearly $537.9 million—an increase of 10.2 million pounds (8 percent) compared with 2015. Massachusetts, the second leading producer, had landings of almost 17.7 million pounds valued at $82 million—an increase of more than 1.2 million pounds (8 percent) compared with 2015. Together, Maine and Massachusetts produced more than 94 percent of the total national landings. The average

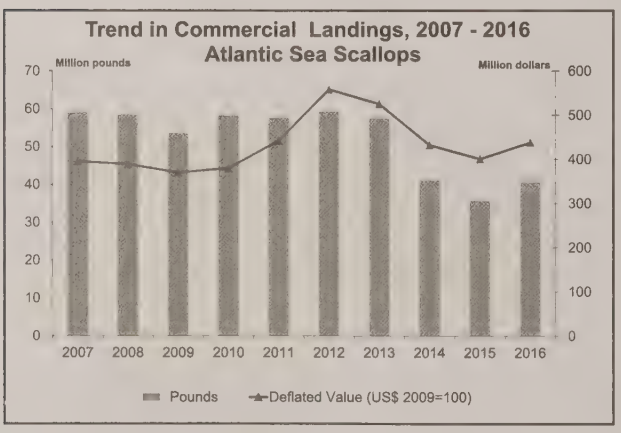
ex-vessel price per pound was $4.20 in 2016 compared with $4.23 in 2015.

LOBSTER, SPINY

U.S. landings of spiny lobster were 5.9 million pounds valued at $55.9 million—a decrease of 659,000 pounds (10 percent) and nearly $6.1 million (nearly 10 percent) compared with 2015. Florida, with landings of nearly 5.2 million pounds valued at $42.2 million, accounted for more than 88 percent of the total catch and more than 75 percent of the value. This was a decrease of 569,000 pounds (10 percent) and $4 million (almost 9 percent) compared with 2015. Overall, the average ex-vessel price per pound was $9.54 in 2016 compared with $9.51 in 2015.

OYSTERS

U.S. oyster landings yielded 33.3 million pounds valued at $217.2 million—an increase of 5.8 million pounds (nearly 21 percent) and nearly $3.4 million (2 percent) compared with 2015. The Gulf region led in production with almost 14.6 million pounds of meats, 44 percent of the national total, principally from Louisiana with 10.6 million pounds (72.0 percent of the regional volume); followed by the Pacific Coast region with almost 7.5 million pounds (more than 22 percent), principally from Washington, with 5.7 million pounds (nearly 77 percent of the region's total volume); and the South Atlantic region with nearly 5.5 million pounds (more than 16 percent). The average ex-vessel price per pound of meats was $6.52 in 2016 compared with $7.76 in 2015.



SCALLOPS

U.S. landings of bay and sea scallops totaled 40.6 million pounds valued at $488 million—an increase of 4.8 million pounds (more than 13 percent) and almost $47.6 million (nearly 11 percent) compared with 2015. The average ex-vessel price per pound of meats decreased from $12.30 in 2015 to $12.02 in 2016.

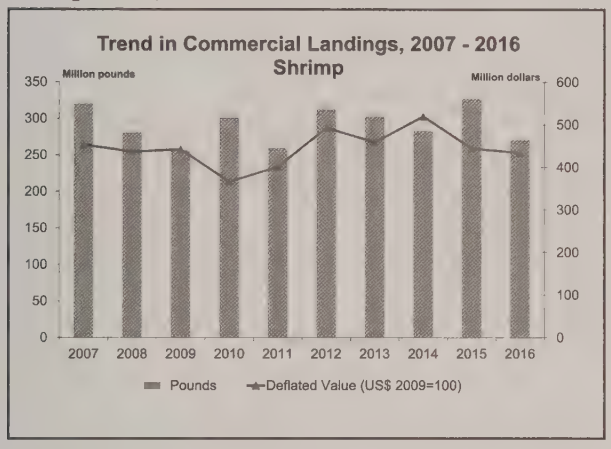
Bay scallop landings were 97,000 pounds valued at $2 million—a decrease of 5,000 pounds (5 percent) and $612,000 (nearly 24 percent) compared with 2015. The average ex-vessel price per pound of meats was $20.10 in 2016 compared with $25.12 in 2015.

Sea scallop landings were 40.5 million pounds valued at $486.1 million—an increase of 4.8 million pounds (more than 13 percent) and over $48.2 million (11 percent) compared with 2015. Massachusetts and New Jersey were the leading states in landings of sea scallops with nearly 22.9 million and 10.5 million pounds of meats, respectively, representing 82 percent of the national total. The average ex-vessel price per pound of meats in 2016 was $12.00 compared with $12.26 in 2015.

SHRIMP

U.S. landings of shrimp were nearly 270.8 million pounds valued at over $483.4 million—a decrease of over 56.3 million pounds (17 percent) and nearly $5.0 million (1 percent) compared with 2015. Shrimp landings by region were: New England, up 44 percent; South Atlantic, up 7 percent; Gulf, down 4 percent; and Pacific, down more than 47 percent. The average ex-vessel price per pound of shrimp increased to $1.78 in 2016 from $1.49 in 2015. Gulf region landings were the nation's largest with 189 million pounds and nearly 70 percent of the national total. Louisiana led all Gulf states with over 92.3 million pounds (up nearly 4 percent compared with 2015); followed by Texas, 60.1 million pounds (down more than 15 percent); Alabama, nearly 17.9 million pounds (up more than 4 percent); Florida West Coast, 10.3 million pounds (down 11 percent); and Mississippi, almost 8.4 million pounds (up less than 1 percent). In the Pacific region, Oregon had

landings of 35.3 million pounds (down 34 percent compared with 2015); Washington had landings of nearly 14.8 million pounds (down 65 percent); and California, almost 4.2 million pounds (down 53 percent).



SQUID

U.S. commercial landings of squid were 140.9 million pounds valued at almost $97.7 million—an increase of 24.2 million pounds (almost 21 percent) and $40.1 million (nearly 70 percent) compared with 2015. California was the leading state with nearly 81.8 million pounds (58% of the national total) and was followed by Rhode Island with almost 22.5 million pounds (16 percent of the national total). The Pacific Coast region landings were 86.1 million pounds (up 1 percent compared with 2015); followed by New England, with 39.2 million pounds (up 66 percent); followed by the Middle Atlantic region with more than 15.5 million pounds (up 94 percent); the South Atlantic region with 107,000 pounds (up over 120 percent); and the Gulf region with 70,000 pounds (up over 37 percent). The average ex-vessel price per pound for squid was 69 cents in 2016 compared with 49 cents in 2015.

United States Commercial Landings

COMMERCIAL LANDINGS DATA COLLECTION

Commercial landings data used in this publication are collected by our state and regional partners, and then combined by NMFS Headquarters staff to provide a national overview of landings made by the domestic fishing fleet. Although reporting is required for all commercially-landed species, the data collected and methods used vary widely among fisheries and among the various regions. Some data come from the fishermen themselves via a logbook or trip ticket program, while others use reports from the seafood dealers who buy their catch. See the following section for summaries of each of the major regional data sources.

MAINE THROUGH GEORGIA. NMFS receives landings data for the Atlantic Coast (Maine through Georgia), from the Atlantic Coastal Cooperative Statistics Program (ACCSP, http://www.accsp.org). ACCSP is a cooperative state–federal program that designs, implements, and conducts marine fisheries data collection programs into a single data management system to meet the needs of fishery managers, scientists, and fishermen. ACCSP compiles landings from the relevant state agencies and from NMFS. Most of these landings are collected from reports of seafood dealers using the Standard Atlantic Fisheries Information System (SAFIS), an online reporting tool developed by the ACCSP and used throughout the Atlantic Coast.

FLORIDA THROUGH TEXAS. For Fisheries of the United States, landings data for the Gulf of Mexico region are provided by the NMFS Southeast Fisheries Science Center (http://www.sefsc.noaa.gov/) in cooperation with the Fisheries Information Network of the Gulf States Marine Fisheries Commission (http://www.gsmfc.org). Most of these data are collected through dealer trip-ticket programs administered by the states. Landings data for Florida are provided by ACCSP.

ATLANTIC HIGHLY MIGRATORY SPECIES (HMS). Landings data for Atlantic HMS (swordfish, sharks, bluefin tuna, and BAYS [bigeye, albacore, yellowfin, and skipjack tunas]) are provided by the NMFS' Atlantic HMS Management Division. For all species except bluefin tuna, the data are collected through the existing electronic dealer reporting programs from Maine to Texas, which include SAFIS (including Georgia and South Carolina) and state trip-ticket programs for the Northeast region, North Carolina, and Florida through Texas. For HMS dealers in the Caribbean, data are collected via an HMS-specific dealer reporting program. Atlantic bluefin tuna landings data are from the HMS Management Division's bluefin tuna dealer reporting database.

WASHINGTON, OREGON, and CALIFORNIA. Pacific Coast landings data are provided by the Pacific Fisheries Information Network (PacFIN, http://pacfin.psmfc.org/), a joint state–federal program focused on fisheries data collection and information management for the Pacific Coast. PacFIN includes data from state fish-ticket, port sampling, and logbook programs, as well as limited-entry and observer data provided by NMFS.

ALASKA. Alaska data are provided by the Alaska Fisheries Information Network (AKFIN, http://www.akfin.org). Landings estimates are derived by combining the NMFS Alaska Regional Office's new Catch Accounting System for groundfish and the Alaska Commercial Fisheries Entry Commission-sourced fish tickets for species other than groundfish.

HAWAII. Data for Hawaii and the Pacific Territories are provided by the Western Pacific Fisheries Information System (WPacFIN, http://www.pifsc.noaa.gov/wpacfin/), a program of the NMFS Pacific Islands Fishery Science Center. WPacFIN staff combines Hawaii Department of Aquatic Resources data with landings from the PIFSC Hawaii-based longline fleet logbook program to compile species totals for the state.

GREAT LAKES. Landings data from the Great Lakes are provided by the U.S. Geological Survey's Great Lakes Science Center (http://www.glsc.usgs.gov/). These data lag the other landings data by 1 year.

LANDINGS BY DISTANCE-FROM-SHORE. Landings by distance-from-shore has been included in Fisheries of the United States for many decades. The categories for distance-from-shore reporting are: "0 to 3 miles from shore" corresponding to state waters; "3-200 miles from shore" corresponding to federally managed waters in the Exclusive Economic Zone (EEZ) of the United States; and "High seas or off Foreign Waters" corresponding to ocean areas beyond the EEZ. Distance-from-shore is derived from spatial elements in the data where it is available. The distribution of landings by distance-from-shore is

usually estimated based on historic data and industry knowledge because location of the catch is not a required reporting element for most fisheries. The Landings by Distance-From-Shore table includes landings, primarily tuna, caught by US-flagged purse seine and trolling vessels that are landed in foreign ports. These ports include American Samoa, Federated States of Micronesia, Kiribati, Papua New Guinea, and the Marshall Islands. Data are estimated by NMFS staff in the Southwest Fisheries Science Center, Pacific Islands Regional Office, and Pacific Islands Fisheries Science Center based on unloading receipts. All of these catches are assumed to have been made on the high seas, beyond 200 miles off-shore. This table also includes landings of Atlantic groundfish and Pacific albacore in Canada made by US-flagged vessels under international agreement.

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Fish							
Alewife	1,337	606	422	1,332	604	408	1,522
Anchovies	37,944	17,212	1,998	18,927	8,585	1,236	17,397
Atka mackerel	117,679	53,379	42,016	121,286	55,015	31,516	91,037
Bluefish	4,299	1,950	3,278	4,533	2,056	3,037	4,921
Blue runner	324	147	265	297	135	254	317
Bonito	370	168	300	275	125	181	193
Butterfish	5,050	2,291	3,233	3,248	1,473	1,945	4,000
Catfish and bullheads	11,859	5,379	5,450	12,682	5,753	6,342	10,342
Chubs	139	63	394	200	91	548	159
Cod:							
Atlantic	3,370	1,529	6,447	3,221	1,461	6,140	8,328
Pacific	699,106	317,112	257,744	708,572	321,406	171,400	696,247
Crevalle (jack)	707	321	545	698	317	532	538
Croaker:							
Atlantic	6,974	3,163	7,010	6,482	2,940	6,536	9,732
Pacific (white)	13	6	8	34	15	29	9
Cusk	99	45	65	85	39	50	95
Dolphinfish	2,401	1,089	6,817	2,216	1,005	7,626	2,506
Eels, American	835	379	14,097	852	386	14,460	1,004
Flatfish:							
Atlantic and Gulf							
American plaice	2,829	1,283	5,216	2,268	1,029	5,681	3,027
Summer flounder	10,626	4,820	34,262	7,760	3,520	30,327	12,373
Winter flounder	3,761	1,706	7,884	2,561	1,162	7,900	4,831
Witch flounder	1,083	491	2,861	877	398	2,686	1,612
Yellowtail flounder	2,135	968	2,801	1,245	565	2,084	3,591
Other	2,276	1,032	5,058	2,491	1,130	4,858	2,947
Total, Atlantic/Gulf	**22,710**	**10,301**	**58,082**	**17,202**	**7,803**	**53,536**	**28,381**
Pacific							
Arrowtooth flounder	61,252	27,784	7,141	62,051	28,146	6,069	85,242
Dover sole	10,903	4,946	4,984	15,699	7,121	6,977	15,055
Flathead sole	26,281	11,921	4,327	25,008	11,344	3,638	32,442
Petrale sole	5,829	2,644	7,084	5,883	2,669	7,006	4,076
Rock sole	103,477	46,937	16,105	101,979	46,257	14,812	129,532
Yellowfin sole	271,313	123,067	34,204	289,257	131,206	37,333	318,589
Other	52,840	23,968	12,417	48,368	21,940	12,020	65,744
Total, Pacific	**531,895**	**241,266**	**86,262**	**548,245**	**248,682**	**87,855**	**650,680**

See notes at end of table.

continued

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Halibut	24,539	11,131	119,271	25,166	11,415	127,008	30,931
Total, flatfish	**579,144**	**262,698**	**263,615**	**590,613**	**267,900**	**268,399**	**709,992**
Goosefish (monkfish)	19,009	8,622	19,215	19,913	9,032	19,981	19,437
Groupers	8,502	3,856	30,852	8,545	3,876	31,626	8,781
Haddock	11,925	5,409	12,685	11,057	5,015	13,315	8,603
Hakes:							
Pacific (whiting)	333,298	151,183	25,208	558,047	253,128	46,639	451,478
Red	1,040	472	515	1,081	490	520	1,347
Silver (Atl. whiting)	14,229	6,454	10,492	13,929	6,318	10,615	15,516
White	3,637	1,650	4,978	3,029	1,374	4,727	5,069
Herring:							
Sea:							
Atlantic	177,397	80,467	25,558	139,263	63,169	29,675	191,152
Pacific	69,176	31,378	7,307	52,287	23,717	5,528	88,868
Thread	1,465	665	310	2,225	1,009	450	1,345
Jack mackerel	2,959	1,342	220	799	362	63	1,928
Lingcod	1,413	641	2,110	1,483	673	2,150	1,468
Mackerels:							
Atlantic	12,382	5,616	3,987	11,777	5,342	3,089	9,587
Chub	14,517	6,585	1,707	4,606	2,089	594	13,723
King and Cero	4,730	2,146	10,085	5,123	2,324	11,195	4,951
Spanish	3,441	1,561	4,097	4,741	2,151	5,252	4,400
Menhaden:							
Atlantic	435,980	197,759	41,418	363,473	164,870	36,453	438,457
Gulf	1,181,950	536,129	125,065	1,364,029	618,719	143,338	1,158,870
Total, menhaden	**1,617,930**	**733,888**	**166,483**	**1,727,502**	**783,590**	**179,791**	**1,597,327**
Mullets	12,460	5,652	8,597	12,862	5,834	9,505	13,476
Pollock:							
Atlantic	6,715	3,046	7,530	5,692	2,582	6,368	11,726
Walleye (Alaska)	3,262,608	1,479,909	441,668	3,355,068	1,521,849	417,207	3,018,869
Rockfishes:							
Ocean perch:							
Atlantic (redfish)	10,869	4,930	6,341	8,573	3,889	5,134	8,348
Pacific	106,004	48,083	23,945	114,152	51,779	23,040	93,783
Other	47,945	21,748	19,215	42,314	19,194	16,758	40,755
Total, rockfishes	**164,818**	**74,761**	**49,501**	**165,039**	**74,861**	**44,932**	**142,886**
Sablefish	35,342	16,031	113,879	33,575	15,230	116,882	38,487

See notes at end of table.

continued

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Salmon:							
Chinook	18,035	8,181	59,266	11,862	5,381	48,623	17,361
Chum	125,163	56,774	59,813	101,359	45,976	56,708	124,028
Coho	25,294	11,473	18,064	30,305	13,746	34,869	32,500
Pink	607,504	275,562	123,006	130,258	59,085	29,793	443,996
Sockeye	290,051	131,566	200,017	287,252	130,297	250,240	236,357
Total, salmon	**1,066,047**	**483,556**	**460,166**	**561,036**	**254,484**	**420,233**	**854,242**
Sardines:							
Pacific	8,412	3,816	1,156	1,108	503	192	104,071
Spanish	1,339	607	249	1,612	731	300	1,298
Scup or porgy	17,091	7,752	11,551	15,903	7,214	10,911	16,299
Sea bass:							
Black (Atlantic)	2,815	1,277	9,309	2,894	1,313	9,903	2,834
White (Pacific)	194	88	849	234	106	852	339
Sea trout or weakfish:							
Gray	153	69	332	182	83	324	231
Spotted	224	102	559	361	164	972	386
Sand (white)	26	12	19	23	10	22	47
Shads:							
American	527	239	451	383	174	290	727
Hickory	159	72	110	104	47	34	109
Sharks:							
Dogfish	21,224	9,627	4,259	28,238	12,809	6,056	23,572
Other	3,689	1,673	2,474	3,142	1,425	2,810	3,389
Sheepshead (Atlantic)	1,330	603	971	1,355	615	1,001	1,563
Skates	54,734	24,827	11,200	54,206	24,588	13,426	57,360
Smelts	597	271	359	397	180	250	733
Snappers:							
Red	6,882	3,122	27,480	6,639	3,011	26,790	5,068
Vermilion	2,276	1,032	7,059	2,427	1,101	7,379	2,937
Unclassified	3,048	1,383	9,583	3,301	1,497	11,012	2,989
Spearfish	3,251	1,475	3,584	3,137	1,423	4,931	2,537
Spot	2,111	958	2,901	707	321	863	3,532
Striped bass	4,963	2,251	17,351	4,979	2,258	19,852	6,322
Swordfish	6,371	2,890	17,236	5,791	2,627	17,212	7,462
Tenpounder (ladyfish)	1,429	648	1,032	2,350	1,066	1,849	1,135
Tilefish	2,656	1,205	9,051	2,268	1,029	8,005	3,106
Trout, rainbow	467	212	1,054	390	177	853	393

See notes at end of table.

continued

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Tuna:							
Albacore	26,010	11,798	31,096	24,079	10,922	39,402	28,806
Bigeye	21,060	9,553	79,278	19,643	8,910	79,183	16,916
Bluefin	1,887	856	8,820	2,668	1,211	14,028	1,544
Little tunny	693	314	316	675	306	333	661
Skipjack	680	308	620	637	289	829	672
Yellowfin	6,718	3,047	17,718	8,199	3,719	23,591	7,374
Unclassified	75	34	118	72	32	111	184
Total, tuna	**57,123**	**25,911**	**137,966**	**55,973**	**25,389**	**157,477**	**56,157**
Whitefish, Lake	6,650	3,016	14,613	6,231	2,826	10,865	8,323
Wolffish, Atlantic	-	-	-	-	-	-	-
Yellow perch	1,766	801	3,816	1,529	694	4,094	1,795
Other marine finfishes	40,684	18,454	46,168	49,663	22,527	62,737	39238
Other freshwater finfishes	13,731	6,228	5,788	13,053	5,921	6,062	13,729
Total, fish	**8,582,612**	**3,893,047**	**2,369,384**	**8,442,812**	**3,829,634**	**2,288,300**	**8,430,686**
Shellfish							
Crustaceans:							
Crabs:							
Blue: Hard	158,616	71,948	234,837	157,466	71,426	213,838	160,322
Soft and peeler	978	444	2,724	784	356	2,701	1,207
Dungeness	23,944	10,861	112,019	64,166	29,106	222,640	57,367
Jonah	13,567	6,154	9,965	15,358	6,966	11,751	13,929
King	17,532	7,952	98,710	14,592	6,619	104,669	16,599
Snow (Tanner):							
Opilio	80,794	36,648	133,699	39,574	17,951	79,924	68,471
Bairdi	19,301	8,755	41,199	11,771	5,339	25,939	8,558
Other	11,661	5,289	45,574	13,637	6,186	42,826	11,643
Total, crabs	**326,393**	**148,051**	**678,727**	**317,348**	**143,948**	**704,288**	**338,096**
Crawfish (freshwater)	4,977	2,258	6,261	12,036	5,459	10,660	10,578
Lobsters:							
American	145,921	66,189	617,187	158,561	71,923	666,679	143,779
Spiny	6,520	2,957	62,027	5,861	2,659	55,936	5,727

See notes at end of table.

continued

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Shrimp:							
New England	36	16	126	51	23	279	3,534
South Atlantic	24,131	10,946	59,523	25,843	11,722	62,069	19,726
Gulf	196,992	89,355	339,147	188,984	85,723	369,967	199,932
Pacific	105,904	48,038	89,547	55,746	25,286	50,696	81,013
Other	7	3	41	163	74	419	13
Total, shrimp	**327,070**	**148,358**	**488,384**	**270,787**	**122,828**	**483,430**	**304,218**
Total, crustaceans	**810,881**	**367,813**	**1,852,586**	**764,593**	**346,817**	**1,920,993**	**802,398**
Mollusks:							
Clams:							
Quahog (hard)	7,480	3,393	57,065	8,702	3,947	61,901	6,589
Geoduck (Pacific)	2,493	1,131	52,175	2,584	1,172	64,636	2,523
Manila (Pacific)	550	249	9,635	990	449	19,373	908
Ocean quahog	30,002	13,609	23,670	30,740	13,944	26,252	32,110
Softshell	2,578	1,169	29,555	2,549	1,156	24,786	3,650
Surf (Atlantic)	40,652	18,440	30,460	41,898	19,005	31,627	42,236
Other	2,341	1,062	3,739	1,423	645	6,281	973
Total, clams	**86,096**	**39,053**	**206,299**	**88,886**	**40,318**	**234,856**	**88,989**
Conch (snails)	3,226	1,463	11,882	2,724	1,236	10,327	4,203
Mussels, blue (sea)	6,129	2,780	8,130	6,445	2,923	11,023	4,345
Oysters	27,535	12,490	213,773	33,295	15,103	217,170	33,615
Scallops:							
Bay	102	46	2,562	97	44	1,950	164
Sea	35,722	16,203	437,934	40,514	18,377	486,101	45,423
Squid:							
Atlantic:							
Illex	5,340	2,422	1,587	14,728	6,681	7,218	20,057
Loligo	26,325	11,941	31,202	39,946	18,119	49,893	25,315
Unclassified	4,009	1,818	275	1,748	793	229	1,942
Pacific:							
Loligo	81,069	36,773	24,447	84,501	38,329	40,315	204,016
Unclassified	-	-	-	-	-	-	10
Total, Squid	**116,743**	**52,954**	**57,511**	**140,923**	**63,922**	**97,655**	**251,340**
Total, mollusks	**275,553**	**124,990**	**938,091**	**312,884**	**141,923**	**1,059,082**	**428,079**
Other shellfish	20,933	9,495	19,575	15,453	7,009	17,793	17,405
Total, Shellfish	**1,107,367**	**502,298**	**2,810,252**	**1,092,930**	**495,750**	**2,997,868**	**1,247,882**

See notes at end of table.

continued

U.S. DOMESTIC LANDINGS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016			Average (2011-2015)
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds
Other							
Horseshoe crab	1,661	753	1,312	1,895	860	1,643	2,098
Sea urchins	11,118	5,043	13,128	9,303	4,220	15,242	14,148
Seaweed, unclassified	14,262	6,469	1,028	24,521	11,123	1,038	19,941
Kelp (with herring eggs)	-	-	-	-	-	-	18
Worms	607	275	7,900	576	261	7,605	678
Total, other	**27,648**	**12,540**	**23,368**	**36,295**	**16,463**	**25,528**	**36,883**
Grand Total, U.S.	**9,717,627**	**4,407,887**	**5,203,004**	**9,572,037**	**4,341,848**	**5,311,696**	**9,715,451**

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks such as clams, oysters, and scallops, which are reported in weight of meats (excluding the shell). Landings for Mississippi River drainage area states are not available.

(2) Less than 500 lb., 0.5 M.T., or $500.

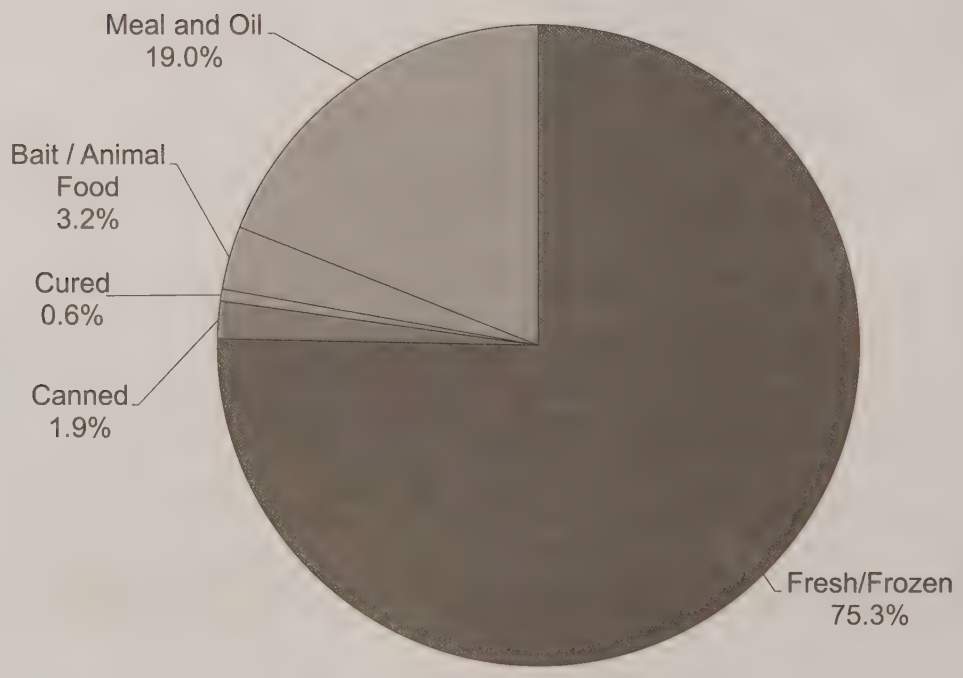
Note: Totals may not add due to rounding. Data do not include landings by U.S.-flag vessels at ports outside the 50 states. Data do not include aquaculture products, except oysters and clams. Metric tons are arrived at by dividing the landings of individual species and group totals by 2.2046.

DISPOSITION OF U.S. DOMESTIC LANDINGS, 2015 AND 2016

End Use	2015			2016		
	Million pounds	Thousand metric tons	Percent	Million pounds	Thousand metric tons	Percent
Fresh and frozen:						
For human food	7,321	3,321	76.5	7,207	3,269	75.3
For bait and animal food	301	137	3.1	302	137	3.2
Total	**7,622**	**3,457**	**79.6**	**7,509**	**3,406**	**78.4**
Canned:						
For human food	364	165	3.8	186	84	1.9
For bait and animal food	0	0	0.0	0	0	0.0
Total	**364**	**165**	**3.8**	**186**	**84**	**1.9**
Cured for human food	65	29	0.7	57	26	0.6
Reduction to meal, oil, other	1,667	756	17.4	1,820	826	19.0
Grand total	**9,718**	**4,408**	**100.0**	**9,572**	**4,342**	**100.0**

Note: Table may not add due to rounding.

Disposition of U.S. Domestic Landings, 2016



U.S. COMMERCIAL LANDINGS OF FISH AND SHELLFISH, 2007-2016 (1)

Year	Landings for human food			Landings for industrial purposes (2)			Total		
	Million pounds	Thousand metric tons	Million dollars	Million pounds	Thousand metric tons	Million dollars	Million pounds	Thousand metric tons	Million dollars
2007	7,490	3,397	4,015	1,819	825	177	9,309	4,223	4,192
2008	6,633	3,009	4,231	1,692	767	152	8,325	3,776	4,383
2009	6,198	2,811	3,733	1,833	831	158	8,031	3,643	3,891
2010	6,526	2,960	4,356	1,705	773	164	8,231	3,734	4,520
2011	7,909	3,587	5,108	1,949	884	181	9,858	4,472	5,289
2012	7,477	3,392	4,923	2,157	978	180	9,634	4,370	5,103
2013	8,043	3,648	5,268	1,827	829	198	9,870	4,477	5,466
2014	7,828	3,551	5,256	1,658	752	192	9,486	4,303	5,448
2015	7,750	3,515	4,972	1,968	893	231	9,718	4,408	5,203
2016	7,484	3,395	5,007	2,088	947	305	9,572	4,342	5,312

(1) Statistics on landings are shown in round weight for all items except univalve and bivalve mollusks such as clams, oysters, and scallops, which are shown in weight of meats (excluding the shell).

(2) Processed into meal, oil, solubles, and shell products, or used as bait or animal food.

* Record. For industrial purposes 1983, 3,201 million lb.; For human food 1993 8,214 million lb.; Total record 1993, 10,467 million lb.

NOTE: Data do not include landings outside the 50 states or products of aquaculture, except oysters and clams.

U.S. DOMESTIC LANDINGS, BY REGION AND BY STATE, 2015 AND 2016 (1)

Regions and States	2015			2016			Record Landings	
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Year	Thousand pounds
New England:	**590,982**	**268,068**	**1,238,588**	**595,087**	**269,930**	**1,328,285**	-	-
Maine	233,780	106,042	588,261	247,947	112,468	633,675	1950	356,266
New Hampshire	11,088	5,029	27,788	7,926	3,595	33,480	2003	27,435
Massachusetts	261,094	118,431	524,915	244,304	110,816	552,175	1948	649,696
Rhode Island	75,636	34,308	81,835	82,541	37,440	93,869	1957	142,080
Connecticut	9,384	4,257	15,789	12,369	5,611	15,086	1930	88,012
Middle Atlantic:	**641,560**	**291,010**	**511,425**	**577,384**	**261,900**	**548,681**	-	-
New York	24,560	11,140	48,676	29,155	13,225	47,726	1880	335,000
New Jersey	148,504	67,361	165,962	123,607	56,068	193,013	1956	540,060
Delaware	3,528	1,600	6,746	4,980	2,259	10,097	1953	367,500
Maryland	54,637	24,783	90,581	56,316	25,545	94,644	1890	141,607
Virginia	410,331	186,125	199,460	363,326	164,804	203,201	1990	786,794
South Atlantic:	**109,298**	**49,577**	**214,397**	**109,967**	**49,881**	**200,727**	-	-
North Carolina	65,663	29,785	119,217	59,330	26,912	94,386	1981	432,006
South Carolina	10,985	4,983	24,528	15,833	7,182	24,645	1965	26,611
Georgia	7,091	3,216	17,076	6,357	2,884	11,886	1927	47,607
Florida, East Coast	25,559	11,593	53,576	28,447	12,903	69,810	1952	264,561 (4)
Gulf:	**1,534,739**	**696,153**	**816,487**	**1,716,140**	**778,436**	**856,946**	-	-
Florida, West Coast	71,633	32,493	190,586	69,127	31,356	178,894	1952	264,561 (4)
Alabama	23,361	10,596	42,246	24,869	11,281	50,797	1973	36,744
Mississippi	304,098	137,938	69,005	304,054	137,918	29,405	1984	476,997
Louisiana	1,054,114	478,143	339,816	1,244,403	564,457	407,222	1984	1,931,027
Texas	81,533	36,983	174,834	73,687	33,424	190,628	1960	237,684
Pacific Coast:	**6,791,476**	**3,080,593**	**2,296,363**	**6,523,654**	**2,959,110**	**2,239,762**	-	-
Alaska	6,038,185	2,738,903	1,763,425	5,585,905	2,533,750	1,550,840	2015	6,038,185
Washington (5)	363,007	164,659	274,116	551,860	250,322	321,072	2016	551,860
Oregon	195,448	88,655	115,735	209,486	95,022	151,711	2013	339,614
California	194,836	88,377	143,087	176,403	80,016	216,139	1936	1,760,193
Great Lakes (3):	**14,949**	**6,781**	**22,345**	**14,755**	**6,693**	**19,162**	-	-
Illinois	-	-	-	-	-	-	-	(2)
Michigan	7,460	3,384	12,148	6,698	3,038	9,837	1930	35,580
Minnesota	217	98	156	286	130	238	-	(2)
New York	58	26	108	62	28	137	-	(2)
Ohio	4,503	2,043	4,885	4,585	2,080	4,981	1936	31,083
Pennsylvania	35	16	117	105	48	125	-	(2)
Wisconsin	2,676	1,214	4,931	3,019	1,369	3,844	-	(2)
Hawaii	34,623	15,705	103,399	35,051	15,899	118,134	1999	36,907
Total, United States	**9,717,627**	**4,407,887**	**5,203,004**	**9,572,038**	**4,341,848**	**5,311,697**	---	---

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks such as clams, oysters, and scallops which are reported in weight of meats (excluding the shell).

(2) Data not available.

(3) Data for the Great Lakes states lag by one year - i.e. data for 2014 (under 2015) and 2015 (under 2016) are in this table.

(4) Record landings for Florida is for all of Florida. Highest Florida landings since 1950 by coast: East - 163,426 (1951), West - 145,659 (1989).

(5) Washington landings incude at-sea processors.

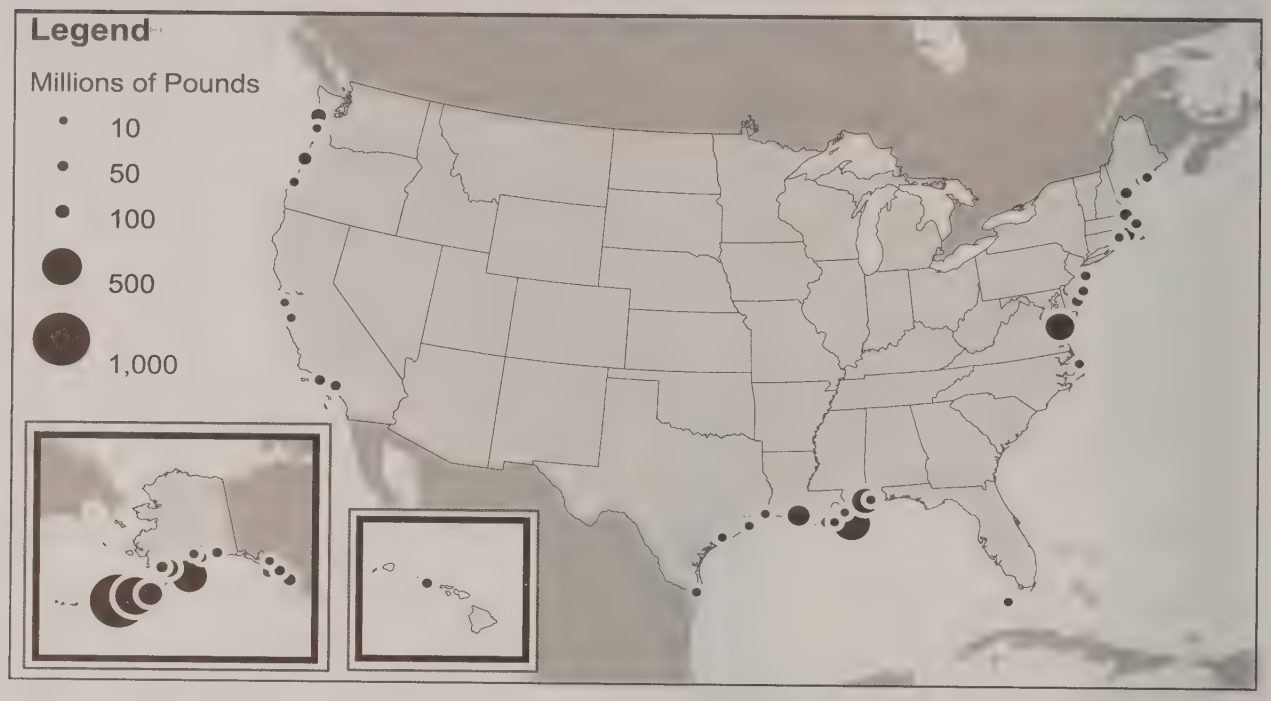
NOTE: Data are preliminary. Totals may not add due to rounding. Data do not include landings by U.S.-flag vessels at Puerto Rico and other ports outside the 50 States. Therefore, they will not agree with the U.S. Commercial Landings by Distance from Shore table beginning on page 15.

COMMERCIAL FISHERY LANDINGS AND VALUE AT MAJOR U.S. PORTS, 2015-2016

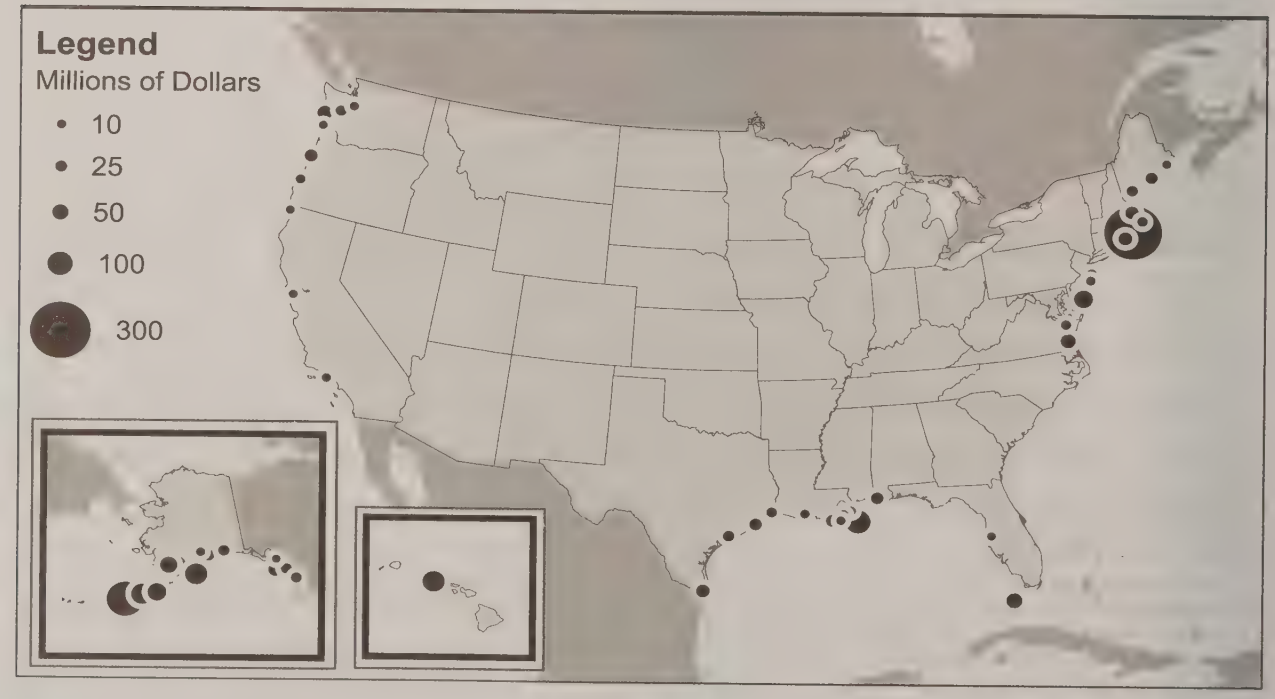
Port	Quantity		Port	Value	
	2015	2016		2015	2016
	Million pounds			Million dollars	
Dutch Harbor, AK	787	770	New Bedford, MA	322	327
Aleutian Islands (Other), AK	467	508	Dutch Harbor, AK	218	198
Empire-Venice, LA	379	440	Empire-Venice, LA	111	122
Kodiak, AK	514	417	Naknek, AK	69	108
Reedville, VA	350	321	Kodiak, AK	138	107
Pascagoula-Moss Point, MS	295	285	Honolulu, HI	97	106
Alaska Penninsula (Other), AK	268	243	Aleutian Islands (Other), AK	111	105
Intracoastal City, LA	428	215	Alaska Penninsula (Other), AK	90	85
Naknek, AK	176	170	Cape May-Wildwood, NJ	72	85
Westport, WA	84	108	Bristol Bay (Other), AK	90	76
New Bedford, MA	124	107	Stonington, ME	64	68
Astoria, OR	92	94	Key West, FL	71	67
Newport, OR	65	77	Hampton Roads Area, VA	56	61
Ketchikan, AK	84	65	Westport, WA	65	59
Gloucester, MA	68	63	Point Judith, RI	46	56
Sitka, AK	87	56	Sitka, AK	59	55
Bristol Bay (Other), AK	70	54	Brownsville-Port Isabel, TX	55	53
Point Judith, RI	46	53	Gloucester, MA	44	52
Portland, ME	62	50	Dulac-Chauvin, LA	45	48
Cape May-Wildwood, NJ	77	47	Newport, OR	33	48
Petersburg, AK	70	41	Galveston, TX	42	45
Port Hueneme-Oxnard-Ventura, CA	44	38	Bayou La Batre, AL	37	45
Los Angeles, CA	15	37	Vinalhaven, ME	40	42
Cordova, AK	162	35	Astoria, OR	38	42
Rockland, ME	31	34	Seward, AK	59	42
Honolulu, HI	32	32	Palacios, TX	31	39
Dulac-Chauvin, LA	31	32	Portland, ME	35	38
Seward, AK	94	27	Cordova, AK	65	38
Provincetown-Chatham, MA	21	27	Petersburg, AK	39	37
Point Pleasant, NJ	24	26	Shelton, WA	34	36
Atlantic City, NJ	26	24	Ketchikan, AK	40	36
Stonington, ME	19	23	Port Arthur, TX	27	33
Kenai, AK	50	22	Provincetown-Chatham, MA	31	33
Bayou La Batre, AL	20	22	Point Pleasant, NJ	28	32
Coos Bay-Charleston, OR	21	21	Reedville, VA	33	31
Lafitte-Barataria, LA	N/A	21	Delacroix-Yscloskey, LA	26	29
Brownsville-Port Isabel, TX	25	18	Lafitte-Barataria, LA	N/A	29
North Kingstown, RI	16	18	Coos Bay-Charleston, OR	22	28
Golden Meadow-Leeville, LA	16	17	Long Beach-Barnegat, NJ	25	27
Wanchese-Stumpy Point, NC	18	16	Port Hueneme-Oxnard-Ventura, CA	21	26
Juneau, AK	17	16			
			Intracoastal City, LA	33	26
Key West, FL	17	16	Seattle, WA	25	26
Port Arthur, TX	14	15	Golden Meadow-Leeville, LA	24	25
Palacios, TX	15	15	Kenai, AK	33	25
Galveston, TX	16	15	Beals Island, ME	21	23
Delacroix-Yscloskey, LA	14	14	San Francisco Area, CA	9	23
Moss Landing, CA	45	13	Tampa Bay-St. Petersburg, FL	25	23
Ilwaco-Chinook, WA	15	13	Juneau, AK	23	23
San Francisco Area, CA	5	13	Crescent City, CA	7	23
Princeton-Half Moon Bay, CA	11	13	Ilwaco-Chinook, WA	15	22

Notes: Certain leading ports have not been included to avoid disclosure of private enterprise information.
Some Alaskan ports are grouped together to protect confidential information. The procedure for doing this was updated for the 2012 edition of FUS. This table has been updated for 2011 and 2012, but direct comparison to prior editions of FUS will not be possible.
The record landings for quantity; Dutch Harbor - Unalaska, AK 787.4 million pounds in 2015 and for value; New Bedford, MA $ 411.1 million in 2012.

Commercial Fishery Landings at Major U.S. Ports, 2016



Commercial Fishery Value at Major U.S. Ports, 2016



COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Fish												
Alewife	1,330	603	408	2	1	-	-	-	-	1,332	604	408
Anchovies	18,740	8,500	1,223	187	85	13	-	-	-	18,927	8,585	1,236
Atka mackerel	78	35	20	121,208	54,980	31,496	-	-	-	121,286	55,015	31,516
Bluefish	1,942	881	1,272	2,591	1,175	1,765	-	-	-	4,533	2,056	3,037
Blue runner	146	66	127	151	69	127	-	-	-	297	135	254
Bonito	128	58	83	147	67	98	-	-	-	275	125	181
Butterfish	363	165	284	2,885	1,309	1,661	-	-	-	3,248	1,473	1,945
Catfish & bullheads	12,306	5,582	6,221	376	170	121	-	-	-	12,682	5,753	6,342
Chubs	200	91	548	-	-	-	-	-	-	200	91	548
Cod:												
Atlantic	112	51	215	3,109	1,410	5,925	-	-	-	3,221	1,461	6,140
Pacific	118,052	53,548	33,854	590,520	267,858	137,546	-	-	-	708,572	321,406	171,400
Crevalle (jack)	662	300	514	36	16	18	-	-	-	698	317	532
Croaker:												
Atlantic	2,733	1,239	3,011	3,749	1,701	3,525	-	-	-	6,482	2,940	6,536
Pacific (white)	21	10	18	13	6	11	-	-	-	34	15	29
Cusk	6	3	4	79	36	46	-	-	-	85	39	50
Dolphinfish	82	37	257	1,461	663	4,899	673	305	2,470	2,216	1,005	7,626
Eel, American	827	375	14,420	25	11	40	-	-	-	852	386	14,460
Flatfish:												
Atlantic and Gulf												
American plaice	29	13	76	2,239	1,016	5,605	-	-	-	2,268	1,029	5,681
Summer flounder	904	410	3,643	6,856	3,110	26,684	-	-	-	7,760	3,520	30,327
Winter flounder	251	114	752	2,310	1,048	7,148	-	-	-	2,561	1,162	7,900
Witch flounder	13	6	38	864	392	2,648	-	-	-	877	398	2,686
Yellowtail flounder	49	22	85	1,196	543	1,999	-	-	-	1,245	565	2,084
Other	1,218	553	4,569	1,273	577	289	-	-	-	2,491	1,130	4,858
Total Atlantic/Gulf	**2,464**	**1,118**	**9,163**	**14,738**	**6,685**	**44,373**	**-**	**-**	**-**	**17,202**	**7,803**	**53,536**

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Pacific												
Arrowtooth flounder	315	143	15	61,736	28,003	6,054	-	-	-	62,051	28,146	6,069
Dover sole	654	297	289	15,045	6,824	6,688	-	-	-	15,699	7,121	6,977
Flathead sole	154	70	11	24,854	11,274	3,627	-	-	-	25,008	11,344	3,638
Petrale sole	519	236	595	5,364	2,433	6,411	-	-	-	5,883	2,669	7,006
Rock sole	93	42	15	101,886	46,215	14,797	-	-	-	101,979	46,257	14,812
Yellowfin sole	27	12	3	289,230	131,194	37,330	-	-	-	289,257	131,206	37,333
Other	511	232	1,023	47,857	21,708	10,997	-	-	-	48,368	21,940	12,020
Total Pacific	**2,273**	**1,031**	**1,951**	**545,972**	**247,651**	**85,904**	**-**	**-**	**-**	**548,245**	**248,682**	**87,855**
Halibut	8,264	3,748	41,628	16,902	7,667	85,380	-	-	-	25,166	11,415	127,008
Total flatfish	**13,001**	**5,897**	**52,742**	**577,612**	**262,003**	**215,657**	**-**	**-**	**-**	**590,613**	**267,900**	**268,399**
Goosefish (monkfish)	591	268	662	19,322	8,764	19,319	-	-	-	19,913	9,032	19,981
Groupers	40	18	178	8,505	3,858	31,448	-	-	-	8,545	3,876	31,626
Haddock	1,183	536	1,408	9,874	4,479	11,907	-	-	-	11,057	5,015	13,315
Hakes:	-	-	-									
Pacific (whiting)	-	-	-	558,047	253,128	46,639	-	-	-	558,047	253,128	46,639
Red	69	31	41	1,012	459	479	-	-	-	1,081	490	520
Silver (Atl. whiting)	641	291	532	13,288	6,027	10,083	-	-	-	13,929	6,318	10,615
White	22	10	39	3,007	1,364	4,688	-	-	-	3,029	1,374	4,727
Herring:												
Sea:												
Atlantic	16,067	7,288	4,166	123,196	55,881	25,509	-	-	-	139,263	63,169	29,675
Pacific	52,287	23,717	5,528	-	-	-	-	-	-	52,287	23,717	5,528
Thread	1,566	710	321	659	299	129	-	-	-	2,225	1,009	450
Jack mackerel	563	256	60	236	107	3	-	-	-	799	362	63
Lingcod	546	248	843	937	425	1,307	-	-	-	1,483	673	2,150
Mackerels:												
Atlantic	513	233	130	11,264	5,109	2,959	-	-	-	11,777	5,342	3,089
Chub	3,971	1,801	490	635	288	104	-	-	-	4,606	2,089	594
King and cero	435	197	1,009	4,688	2,127	10,186	-	-	-	5,123	2,324	11,195
Spanish	3,336	1,513	3,561	1,405	637	1,691	-	-	-	4,741	2,151	5,252
Menhaden:												
Atlantic	289,648	131,383	28,643	73,825	33,487	7,810	-	-	-	363,473	164,870	36,453
Gulf	1,348,433	611,645	141,733	15,596	7,074	1,605	-	-	-	1,364,029	618,719	143,338
Total menhaden	**1,638,081**	**743,029**	**170,376**	**89,421**	**40,561**	**9,415**	**-**	**-**	**-**	**1,727,502**	**783,590**	**179,791**

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Mullets	12,701	5,761	9,380	161	73	125	-	-	-	12,862	5,834	9,505
Pollock:												
Atlantic	140	63	195	5,552	2,518	6,173	-	-	-	5,692	2,582	6,368
Walleye (Alaska)	82,961	37,631	7,226	3,272,107	1,484,218	409,981	-	-	-	3,355,068	1,521,849	417,207
Rockfishes:												
Ocean perch:												
Atlantic (redfish)	1,922	872	1,142	6,651	3,017	3,992	-	-	-	8,573	3,889	5,134
Pacific	577	262	110	113,575	51,517	22,930	-	-	-	114,152	51,779	23,040
Other	1,593	723	2,052	40,721	18,471	14,706	-	-	-	42,314	19,194	16,758
Total rockfishes	**4,092**	**1,856**	**3,304**	**160,947**	**73,005**	**41,628**	**-**	**-**	**-**	**165,039**	**74,861**	**44,932**
Sablefish	2,072	940	7,586	31,503	14,290	109,296	-	-	-	33,575	15,230	116,882
Salmon:												
Chinook or king	10,575	4,797	40,438	1,287	584	8,185	-	-	-	11,862	5,381	48,623
Chum or keta	101,355	45,974	56,706	4	2	2	-	-	-	101,359	45,976	56,708
Coho	29,891	13,559	34,242	414	188	627	-	-	-	30,305	13,746	34,869
Pink	130,258	59,085	29,793	-	-	-	-	-	-	130,258	59,085	29,793
Sockeye	287,246	130,294	250,235	6	3	5	-	-	-	287,252	130,297	250,240
Total salmon	**559,325**	**253,708**	**411,414**	**1,711**	**776**	**8,819**	**-**	**-**	**-**	**561,036**	**254,484**	**420,233**
Sardines:												
Pacific	1,106	502	192	2	1	(2)	-	-	-	1,108	503	192
Spanish	1,533	696	282	79	36	18	-	-	-	1,612	731	300
Scup or porgy	5,476	2,484	3,638	10,427	4,730	7,273	-	-	-	15,903	7,214	10,911
Sea bass:												
Black (Atlantic)	572	259	1,888	2,322	1,053	8,015	-	-	-	2,894	1,313	9,903
White (Pacific)	82	37	298	152	69	554	-	-	-	234	106	852
Sea trout or weakfish:												
Gray	83	38	143	99	45	181	-	-	-	182	83	324
Spotted	343	155	931	18	8	41	-	-	-	361	164	972
Sand (white)	18	8	17	5	2	5	-	-	-	23	10	22
Shads:												
American	370	168	274	13	6	16	-	-	-	383	174	290
Hickory	103	47	34	1	1	(2)	-	-	-	104	47	34

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Sharks:												
Dogfish	4,141	1,879	865	24,097	10,931	5,191	-	-	-	28,238	12,809	6,056
Other	851	386	429	2,196	996	2,313	95	43	68	3,142	1,425	2,810
Sheepshead (Atlantic)	1,293	587	939	62	28	62	-	-	-	1,355	615	1,001
Skates	5,274	2,392	1,263	48,931	22,195	12,162	1	-	1	54,206	24,588	13,426
Smelts	308	140	199	89	40	51	-	-	-	397	180	250
Snappers:												
Red	490	222	1,561	6,149	2,789	25,229	-	-	-	6,639	3,011	26,790
Vermillion	75	34	251	2,352	1,067	7,128	-	-	-	2,427	1,101	7,379
Unclassified	477	216	1,616	2,824	1,281	9,396	-	-	-	3,301	1,497	11,012
Spearfish	18	8	28	1,129	512	1,777	1,990	903	3,126	3,137	1,423	4,931
Spot	368	167	473	339	154	390	-	-	-	707	321	863
Striped bass	4,792	2,173	19,156	187	85	696	-	-	-	4,979	2,258	19,852
Swordfish	312	142	983	3,356	1,522	10,157	2,123	963	6,072	5,791	2,627	17,212
Tenpounder (ladyfish)	2,321	1,053	1,828	29	13	21	-	-	-	2,350	1,066	1,849
Tilefish	23	10	92	2,245	1,018	7,913	-	-	-	2,268	1,029	8,005
Trout, rainbow	390	177	852	(2)	(2)	1	-	-	-	390	177	853
Tuna:												
Albacore	203	92	363	23,348	10,590	38,087	1,094	496	1,940	24,645	11,179	40,390
Bigeye	45	20	147	4,607	2,090	18,650	19,123	8,674	63,097	23,775	10,784	81,894
Bluefin	117	53	102	2,551	1,157	13,926	-	0	-	2,668	1,210	14,028
Little tunny	100	45	61	575	261	272	-	-	-	675	306	333
Skipjack	17	8	20	329	149	397	376,949	170,983	247,635	377,295	171,140	248,052
Yellowfin	383	174	939	5,684	2,578	16,225	39,290	17,822	30,815	45,357	20,574	47,979
Unclassified	9	4	18	59	27	85	4	2	8	72	33	111
Total tuna	**874**	**396**	**1,650**	**37,153**	**16,852**	**87,642**	**436,460**	**197,977**	**343,495**	**474,487**	**215,226**	**432,787**
Whitefish, lake	6,231	2,826	10,865	-	-	-	-	-	-	6,231	2,826	10,865
Wolffish, Atlantic	-	-	-	-	-	-	-	-	-	-	-	-
Yellow perch	1,528	693	4,093	1	(2)	1	-	-	-	1,529	694	4,094
Other marine finfishes	31,988	14,509	36,292	13,525	6,135	17,386	6,071	2,754	10,658	51,584	23,398	64,336
Other freshwater finfishes	12,964	5,971	6,034	89	40	28	-	-	-	13,053	5,921	6,062
Total finfish	**2,636,335**	**1,195,834**	**840,836**	**5,779,499**	**2,621,564**	**1,358,483**	**447,413**	**202,945**	**365,890**	**8,863,247**	**4,020,342**	**2,565,209**

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Shellfish												
Crustaceans:												
Crabs:												
Blue: Hard	149,649	67,880	202,496	7,817	3,546	11,342	-	-	-	157,466	71,426	213,838
Soft or peeler	784	356	2,698	(2)	(2)	3	-	-	-	784	356	2,701
Dungeness	51,626	23,417	182,389	12,540	5,688	40,251	-	-	-	64,166	29,106	222,640
Jonah	4,750	2,154	3,646	10,608	4,812	8,105	-	-	-	15,358	6,966	11,751
King	844	383	4,394	13,748	6,236	100,275	-	-	-	14,592	6,619	104,669
Snow (tanner):												
Opilio	-	-	-	39,574	17,950	79,924	-	-	-	39,574	17,951	79,924
Bairdi	1,325	601	2,996	10,446	4,738	22,943	-	-	-	11,771	5,339	25,939
Other	7,367	3,342	23,734	6,270	2,844	19,092	-	-	-	13,637	6,186	42,826
Total crabs	**216,345**	**98,133**	**422,353**	**101,003**	**45,815**	**281,935**	**-**	**-**	**-**	**317,348**	**143,948**	**704,288**
Crawfish, freshwater	12,036	5,460	10,660	-	-	-	-	-	-	12,036	5,459	10,660
Lobsters:												
American	93,531	42,425	390,233	65,030	29,498	276,446	-	-	-	158,561	71,923	666,679
Spiny	4,259	1,932	39,882	1,602	727	16,054	-	-	-	5,861	2,659	55,936
Shrimp:												
New England	19	9	100	32	14	179	-	-	-	51	23	279
South Atlantic	14,295	6,484	32,298	11,548	5,238	29,771	-	-	-	25,843	11,722	62,069
Gulf	90,238	40,932	140,230	98,746	44,791	229,737	-	-	-	188,984	85,723	369,967
Pacific	16,307	7,397	15,383	39,439	17,889	35,313	-	-	-	55,746	25,286	50,696
Other	75	34	174	88	40	245	-	-	-	163	74	419
Total shrimp	**120,934**	**54,855**	**188,185**	**149,853**	**67,973**	**295,245**	**-**	**-**	**-**	**270,787**	**122,828**	**483,430**
Total crustaceans	**447,105**	**202,805**	**1,051,313**	**317,488**	**144,012**	**869,680**	**-**	**-**	**-**	**764,593**	**346,817**	**1,920,993**

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Mollusks:												
Clams:												
Quahog (hard)	8,662	3,929	61,472	40	18	429	-	-	-	8,702	3,947	61,901
Geoduck (Pacific)	2,584	3,110	64,636	-	-	-	-	-	-	2,584	1,172	64,636
Manila (Pacific)	990	3,455	19,373	-	-	-	-	-	-	990	449	19,373
Ocean quahog	2,127	965	2,048	28,613	12,979	24,204	-	-	-	30,740	13,944	26,252
Softshell	2,455	1,114	23,813	94	43	973	-	-	-	2,549	1,156	24,786
Surf (Atlantic)	11,382	5,163	9,044	30,516	13,842	22,583	-	-	-	41,898	19,005	31,627
Other	1,423	645	6,274	(2)	(2)	7	-	-	-	1,423	645	6,281
Total clams	**29,623**	**13,437**	**186,660**	**59,263**	**26,882**	**48,196**	**-**	**-**	**-**	**88,886**	**40,318**	**234,856**
Conch (snails)	2,523	1,145	9,393	201	91	934	-	-	-	2,724	1,236	10,327
Mussels, blue (sea)	6,340	2,876	10,879	105	47	144	-	-	-	6,445	2,923	11,023
Oysters	33,139	15,032	215,625	156	71	1,545	-	-	-	33,295	15,103	217,170
Scallops:												
Bay	97	44	1,950	-	-	-	-	-	-	97	44	1,950
Sea	659	299	7,946	39,855	18,078	478,155	-	-	-	40,514	18,377	486,101
Squid:												
Atlantic:												
Illex	107	48	58	14,621	6,632	7,160	-	-	-	14,728	6,681	7,218
Loligo	4,947	2,244	6,158	34,999	15,875	43,735	-	-	-	39,946	18,119	49,893
Unclassified	140	63	45	1,608	729	184	-	-	-	1,748	793	229
Pacific:												
Loligo	79,298	35,970	38,018	5,203	2,360	2,297	-	-	-	84,501	38,329	40,315
Unclassified	-	-	-	-	-	-	-	-	-	-	-	-
Total squid	**84,492**	**38,325**	**44,279**	**56,431**	**25,597**	**53,376**	**-**	**-**	**-**	**140,923**	**63,922**	**97,655**
Total mollusks	**156,873**	**71,157**	**476,732**	**156,011**	**70,766**	**582,350**	**-**	**-**	**-**	**312,884**	**141,923**	**1,059,082**
Other shellfish	14,238	6,458	15,513	1,215	551	2,280	-	-	-	15,453	7,009	17,793
Total shellfish	**618,216**	**280,421**	**1,543,558**	**474,714**	**215,329**	**1,454,310**	**-**	**-**	**-**	**1,092,930**	**495,750**	**2,997,868**

See notes at end of table.

continued

COMMERCIAL LANDINGS OF FISH AND SHELLFISH BY U.S. FISHING CRAFT: BY SPECIES, BY DISTANCE CAUGHT OFF U.S. SHORES, AND IN INTERNATIONAL WATERS, 2016 (1)

Species	Distance from U.S. Shores						High Seas or off Foreign Shores			Total U.S. Landings		
	0 to 3 miles			3 to 200 miles								
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Other												
Horseshoe crab	1,679	762	1,438	216	98	205	-	-	-	1,895	860	1,643
Sea urchins	7,235	3,282	12,670	2,068	938	2,572	-	-	-	9,303	4,220	15,242
Seaweed, unclassified	22,940	10,406	841	1,581	717	197	-	-	-	24,521	11,123	1,038
Kelp (with herring eggs)	-	-	-	-	-	-	-	-	-	-	-	-
Worms	576	261	7,605	-	-	-	-	-	-	576	261	7,605
Total other	**32,430**	**14,710**	**22,554**	**3,865**	**1,753**	**2,974**	**-**	**-**	**-**	**36,295**	**16,463**	**25,528**
Grand total, 2016	**3,286,981**	**1,490,965**	**2,406,948**	**6,258,078**	**2,838,646**	**2,815,767**	**447,413**	**202,945**	**365,890**	**9,992,472**	**4,532,556**	**5,588,605**
Grand total, 2015	**3,673,576**	**1,666,323**	**2,303,751**	**6,019,342**	**2,730,356**	**2,826,567**	**572,251**	**259,571**	**356,214**	**10,265,169**	**4,656,250**	**5,486,532**

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks, such as clams, oysters, and scallops, which are in weight of meats (excluding the shell). The National Marine Fisheries Service estimated the distance-from-shore landings for data collected by the Service and States. Includes landings from the Great Lakes and other inland waters, but excludes Mississippi River drainage area states.

(2) Less than 500 lb. or $500.

NOTE: Totals may not agree due to rounding. Data include landings by U.S.-flag vessels in Canada, Puerto Rico, and other ports outside the 50 States. Therefore, they will not agree with "U.S. Commercial Landings" tables beginning on page 1. Data do not include aquaculture products except oysters or clams.

DOMESTIC LANDINGS FOR U.S. TERRITORIAL POSSESSIONS, 2016

Group / Species	American Samoa			Guam			Northern Marianas Islands		
	Pounds	Kilos	Dollars	Pounds	Kilos	Dollars	Pounds	Kilos	Dollars
Fish									
Barracudas	1,112	504	3,640	965	438	2,170	17	8	-
Billfishes:									
Marlin	260	118	766	18,896	8,571	28,630	1,435	651	2,865
Sailfish	281	127	931	908	412	1,312	-	-	-
Swordfish	4,595	2,084	12,335	-	-	-	-	-	-
Spearfish	18,903	8,574	22,750	-	-	-	-	-	-
Dolphinfish	2,849	1,292	6,084	24,984	11,333	61,134	3,966	1,799	8,555
Emperors	6,794	3,082	21,759	952	432	3,062	13,300	6,033	33,657
Goatfish	77	35	253	474	215	1,748	2,087	947	5,452
Groupers	4,312	1,956	13,171	154	70	519	1,171	531	4,368
Jacks:									
Amberjack	383	174	479	76	34	266	530	240	1,401
Bigeye scad	62	28	186	1,368	621	3,743	1,534	696	4,366
Black jack	994	451	3,286	15	7	49	107	49	268
Rainbow runner	771	350	2,052	1,767	802	3,967	1,521	690	3,516
Other	1,403	636	3,263	689	313	2,120	1,307	593	3,307
Parrotfishes	14,869	6,745	46,339	4,237	1,922	14,803	8,232	3,734	28,136
Rabbitfish	24	11	70	1,273	577	4,248	2,942	1,334	9,607
Snappers:									
Blue lined snapper	1,280	581	4,321	-	-	-	758	344	1,912
Ehu	1,477	670	6,887	82	37	350	1,643	745	6,591
Gindai (flower snapper)	282	128	887	153	69	648	626	284	2,474
Gray jobfish	5,463	2,478	17,940	30	14	94	440	200	994
Humpback	4,015	1,821	12,951	-	-	-	-	-	-
Lehi (silverjaw)	2,569	1,165	10,281	93	42	389	541	245	1,603
Onaga	4,617	2,094	21,380	493	224	2,959	4,291	1,946	20,991
Opakapaka	656	298	2,477	249	113	1,056	1,464	664	5,003
Snappers, other	3,511	1,593	10,597	552	250	1,991	1,643	745	4,962
Total snappers									
Squirrelfish	4,039	1,832	10,938	29	13	93	1,945	882	5,015
Surgeonfishes:									
Unicornfishes	4,426	2,008	13,301	3,909	1,773	12,817	-	-	-
Other	25,933	11,763	76,120	344	156	1,149	21,861	9,916	55,784
Tunas:									
Albacore	3,055,249	1,385,852	3,475,743	-	-	-	-	-	-
Bigeye	218,266	99,005	132,018	-	-	-	-	-	-
Skipjack	130,385	59,142	80,467	22,007	9,982	43,813	103,299	46,856	213,227
Yellowfin	502,364	227,871	369,484	10,240	4,645	24,540	10,880	4,935	24,028
Other	2,992	1,357	7,826	1,102	500	2,405	2,332	1,058	4,795
Total, tuna	**3,909,256**	**1,773,227**	**4,065,538**	**33,349**	**15,127**	**70,758**	**116,511**	**52,849**	**242,050**
Wahoo	133,804	60,693	99,499	12,916	5,859	31,977	1,029	467	2,185
Wrasses	16	7	48	80	36	276	36	16	106
Other marine finfishes	8,459	3,837	26,331	13,090	5,938	42,818	8,993	4,079	22,593
Total fish	**4,167,492**	**1,890,362**	**4,516,860**	**122,127**	**55,396**	**295,146**	**199,930**	**90,688**	**477,761**
Shellfish, et al.									
Crabs	-	-	-	5	2	17	-	-	-
Lobster, spiny	1,102	500	4,137	211	96	846	2,065	937	24,854
Octopus	384	174	944	4,767	2,162	16,135	1,258	571	3,341
Shelfish, other	17	8	60	-	-	-	392	178	2,743
Total shellfish, et al.	**1,503**	**682**	**5,141**	**4,983**	**2,260**	**16,998**	**3,715**	**1,685**	**30,938**
Grand Total	**4,168,995**	**1,891,044**	**4,522,001**	**127,110**	**57,657**	**312,144**	**203,645**	**92,373**	**508,699**

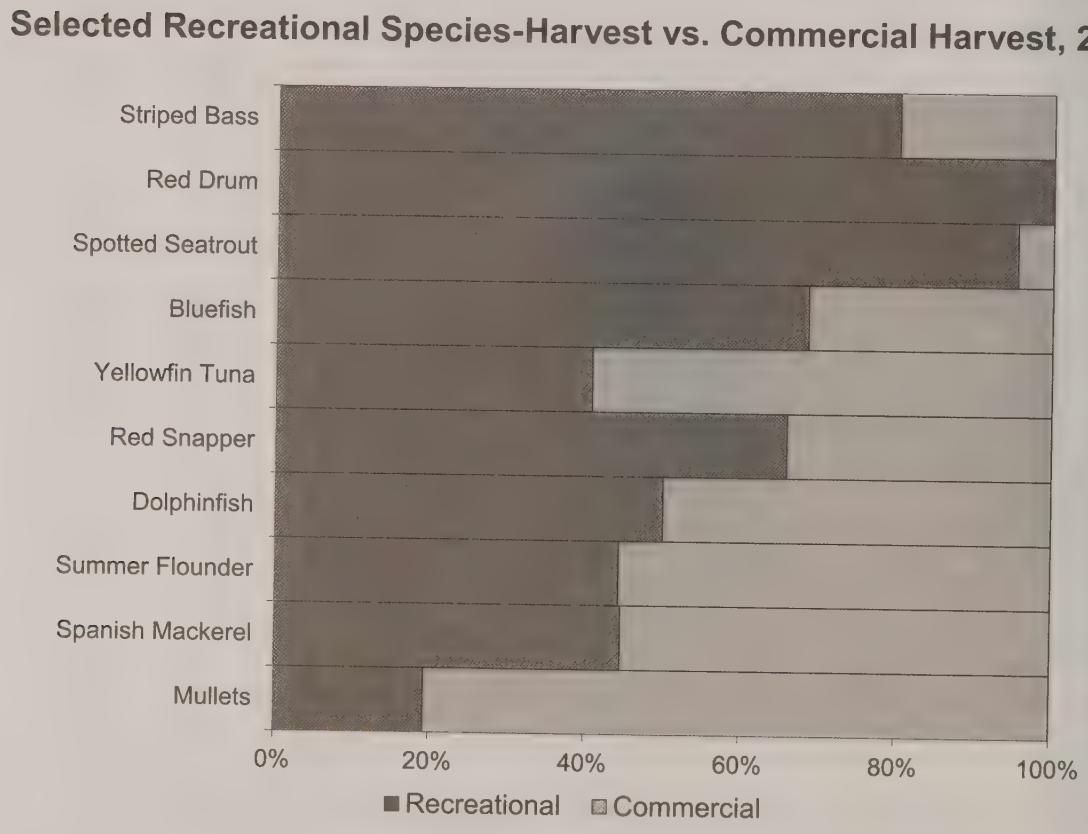
(1) All landings are as reported. No adjustments or estimations have been made.

DOMESTIC LANDINGS FOR U.S. TERRITORIAL POSSESSIONS, 2016

Group / Species	Puerto Rico (1)			U.S. Virgin Islands (1)		
	Pounds	Kilos	Dollars	Pounds	Kilos	Dollars
Fish						
Ballyhoo	45,048	20,434	54,922	8,121	3,684	38,855
Barracuda	1,852	840	4,744	1,369	621	5,476
Dolphinfish	56,946	25,831	175,027	62,139	28,186	453,132
Goatfish	3,574	1,621	9,171	1,012	459	1,035
Groupers:						
Red hind	33,500	15,196	88,662	41,667	18,900	262,217
Misty	2,487	1,128	7,972	34	15	204
Other	5,715	2,592	17,836	16,212	7,354	93,183
Grunts	14,630	6,636	27,197	27,302	12,384	166,470
Hogfish	29,490	13,377	97,825	2,735	1,240	16,407
Jacks:						
Bar jack	17,176	7,791	35,977	4,446	2,017	26,135
Horse-eye jack	1,247	566	2,156			
Other	2,506	1,137	5,129	26,721	12,120	159,578
Mackerel, king and cero	33,481	15,187	85,308	20,142	9,137	137,708
Mojarra	4,577	2,076	7,731	-	-	-
Mullet	9,808	4,449	15,620	-	-	-
Parrotfish	24,989	11,335	50,606	87,976	39,906	505,713
Scup or porgy	10,406	4,720	19,084	9,548	4,331	49,988
Sharks, other	7,146	3,241	11,754	635	288	372
Snappers:						
Lane	63,505	28,806	175,570	2,675	1,213	16,766
Mutton	19,224	8,720	57,507	10,154	4,606	63,707
Silk	138,830	62,973	728,668	9,360	4,246	63,655
Yellowtail	94,773	42,989	296,020	34,094	15,465	213,544
Other	121,839	55,266	616,770	28,042	12,720	179,876
Total snappers	**438,171**	**198,754**	**1,874,535**	-	-	-
Snook	6,221	2,822	12,412	-	-	-
Squirrelfish	2,762	1,253	5,326	9,331	4,233	31,690
Surgeonfish				27,183	12,330	140,446
Triggerfish	39,493	17,914	65,071	61,784	28,025	392,631
Trunkfish (boxfish)	24,576	11,148	61,350	11,773	5,340	35,420
Tuna:						
Albacore	1,548	702	4,214	-	-	-
Blackfin	21,142	9,590	42,441	1,450	658	9,425
Little (tunny)	5,267	2,389	7,588	22,841	10,360	161,731
Skipjack	8,542	3,875	15,016	1,231	558	8,390
Yellowfin	5,412	2,455	14,577	9,983	4,528	71,021
Unclassified	2,731	1,239	9,282	4,364	1,979	1,927
Total tuna	**44,642**	**20,250**	**93,118**	**39,869**	**18,083**	**252,494**
Wahoo	10,111	4,586	32,256	37,516	17,017	277,301
Other marine finfishes	21,713	9,849	34,354	44,054	19,983	191,688
Total fish	**892,267**	**404,733**	**2,895,143**	**625,894**	**283,903**	**3,775,691**
Shellfish, et al.						
Crabs	2,873	1,303	49,568	1,844	836	8,298
Lobster, spiny	260,435	118,133	1,685,455	151,488	68,715	1,317,573
Conch (snail) meats	179,318	81,338	947,934	32,659	14,814	196,775
Octopus	14,661	6,650	56,242	-	-	-
Shellfish, other	1,578	716	7,186	3,674	1,667	9,262
Total shellfish, et al.	**458,865**	**208,140**	**2,746,385**	**189,665**	**86,032**	**1,531,908**
Grand Total	**1,351,132**	**612,873**	**5,641,528**	**815,559**	**369,935**	**5,307,599**

(1) All landings are as reported. No adjustments or estimations have been made.

The following comparisons between the top species, by weight, for U.S. commercial landings and recreational fish harvests include only species with both recreational and commercial fisheries. Further, these comparisons do not include data for Alaska and Texas because recreational weight data are not provided by those states. Recreational harvest shown represents type A+B1 catch which includes both fish brought back to the dock, used for bait, released dead, or filleted.



Top Recreational and Commercial Finfish Species, by Coast, 2016 (Thousands of Pounds)

Atlantic Coast

Rank	Species	Commercial	Recreational	Total Landings
1	Atlantic Herring	138,374	129	138,503
2	Dogfish	27,603	313	27,916
3	Striped bass	4,978	19,894	24,873
4	Goosefish (anglerfish)	19,913	5	19,918
5	Atlantic mackerel	11,776	2,999	14,775
6	Silver Hake	13,929	51	13,980
7	Summer flounder (fluke)	7,761	6,183	13,944
8	Bluefish	4,256	9,538	13,794
9	Haddock	11,057	1,535	12,592
10	Catfish & Bullheads	7,294	1,382	8,676

Gulf Coast

Rank	Species	Commercial	Recreational	Total Landings
1	Mullets	9,528	2,597	12,125
2	Red snapper	2,830	5,479	8,309
3	Spotted sea trout	63	5,606	5,669
4	King & Cero mackerel	1,495	2,686	4,181
5	Spanish mackerel	1,612	2,489	4,100
6	Thread herring	2,212	248	2,461
7	Vermilion snapper	1,061	692	1,753
8	Blue runner	157	1,191	1,348
9	Dolphinfish	30	1,102	1,132
10	Sand (white) sea trout	19	1,109	1,128

West Coast

Rank	Species	Commercial	Recreational	Total Landings
1	Unspecified rockfishes	10,365	4,474	14,839
2	Sablefish	11,799	4	11,802
3	Chub mackerel	3,945	398	4,344
4	Lingcod	1,053	2,153	3,206
5	Pacific Flounder	2,736	1	2,736
6	Halibut	1,619	846	2,465
7	Yellowfin tuna	808	424	1,232
8	Bluefin tuna	783	89	873
9	Jack mackerel	800	8	808
10	Dogfish	636	1	637

U.S. Aquaculture

INTRODUCTION

Aquaculture is defined as the propagation and rearing of aquatic species in controlled or selected environments (National Aquaculture Act of 1980). Aquaculture is gaining global importance and plays an important role in global food security. Although the U.S. is not a major aquaculture producer, ranking 16th worldwide for fish and shellfish production from aquaculture, it is estimated that over half of the seafood that the U.S. imports and consumes comes from aquaculture. Aquaculture plays an important role in producing many popular seafood products, including salmon, oysters, and clams in the U.S. as well as imported shrimp. The data in this section are current through 2015 and therefore lag 1 year behind the rest of the data in Fisheries of the United States.

SOURCES OF DATA

Accurate statistics about the state of the U.S. marine aquaculture industry are essential for quantitatively demonstrating the contribution of aquaculture to coastal economies and to U.S. seafood production. Regular, periodic data are also necessary to assess industry trends. However, the United States does not conduct an annual national data collection for aquaculture production. To derive the estimates reported here, NMFS compiles data from a number of sources including state agencies, industry groups, the United States Department of Agriculture (USDA) and specialized surveys. Round weight is reported for most species, but oysters, clams, and mussels are reported as meat weight (i.e., without the shell). For a few species, such as ornamental fish, only value is reported. The values reported are at the farm-gate level.

More detailed data on United States Aquaculture are available from the USDA Census of Aquaculture for 2013 (http://www.agcensus.usda.gov/Publications/Census_of_Aquaculture/). This is the first Census of Aquaculture since 2005 and is a follow-up to the 2012 Census of Agriculture. The Census of Aquaculture provides more information on freshwater aquaculture, species farmed, and methods used. Data in the census is from 2013 because the census is not conducted annually. Data from this publication will not agree exactly with data from the Census of Aquaculture due to differences in methodology and sources of data.

World data are compiled by the FAO and are available on its website (http://www.fao.org/fishery/statistics/global-aquaculture-production) and through its FishStatJ software (http://www.fao.org/fishery/statistics/software/fishstatj/en). For global data, all species are reported in live weight.

DATA HIGHLIGHTS

In 2015, estimated freshwater plus marine U.S. aquaculture production was 627 million pounds with a value of $1.39 billion. This volume of production reflects an increase of 19 million pounds (3.2%) from 2014. Freshwater aquaculture production increased slightly from 2014, increasing 13.6 million pounds (2.6%). In 2015, marine aquaculture production also increased slightly, increasing by 6.0 million pounds (6.6%) and $7.9 million (2.1%). Freshwater production is primarily composed of catfish (317.4 million pounds), crawfish (140.4 million pounds), and trout (45.8 million pounds). Atlantic salmon is the leading species for marine finfish aquaculture (47.5 million pounds), while oysters have the highest volume (35.2 million pounds) for marine shellfish production. Thriving shellfish industries can be found in all coastal regions of the United States, however the Atlantic and Pacific Coast states produce more oysters, clams, and mussels by value ($112.4 and $95.9 million, respectively), while the Gulf states produce more by volume (24.9 million pounds).

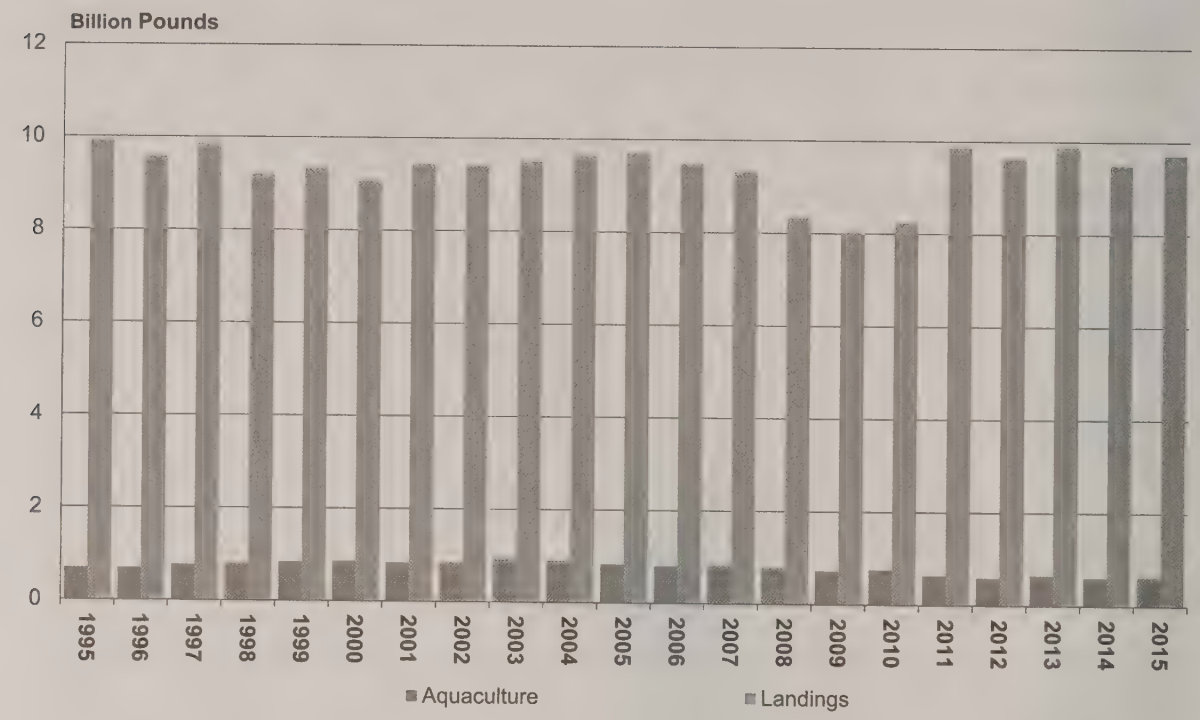
The FAO estimates that nearly half of world seafood consumption comes from aquaculture and this percentage is likely to increase in the future. By far, Asia is the leading continent for aquaculture production. Asia produces 89 percent of the global aquaculture production of fish, crustaceans and mollusks, which totals 76.6 million metric tons. The top five producing countries are in Asia: China, India, Indonesia, Vietnam, and Bangladesh. FAO reported that the United States ranked sixteenth in aquaculture production of fish, crustaceans and mollusks. Globally, carps (29.1 million metric tons), tilapias (5.7 million metric tons), and salmon (3.4 million metric tons) are the finfish species groups with the greatest production. Clams (5.4 million metric tons), oysters (5.3 million metric tons), and shrimp (4.9 million metric tons) are the shellfish species groups with the most production. Aquatic plant farming, primarily seaweed, also represents a significant sector of global aquaculture production (29.4 million metric tons, valued at 4.8 billion). Seaweed farming is just now establishing in the U.S. and shows promise to become an important contributor to future U.S. marine aquaculture production.

ESTIMATED U.S. AQUACULTURE PRODUCTION, 2010 - 2015						
Species	2010			2011		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	478,854	217,205	375,078	348,202	157,942	390,977
Striped bass	8,531	3,870	28,837	7,751	3,516	29,256
Tilapia	22,000	9,979	52,988	22,000	9,979	53,900
Trout	33,953	15,401	47,745	33,316	15,112	51,532
Crawfish	116,716	52,942	177,406	117,804	53,435	205,725
Total Freshwater	**660,054**	**299,396**	**682,054**	**529,074**	**239,984**	**731,390**
Marine:						
Salmon	43,066	19,535	98,986	40,995	18,595	104,038
Clams	9,182	4,165	95,458	10,324	4,683	104,337
Mussels	886	402	6,633	880	399	7,254
Oysters	36,864	16,721	111,778	26,592	12,062	98,444
Shrimp	2,974	1,349	5,949	3,554	1,612	6,145
Total Marine	**92,973**	**42,172**	**318,804**	**82,345**	**37,351**	**320,218**
Miscellaneous	-	-	282,114	-	-	285,359
Totals	**753,027**	**341,568**	**1,282,972**	**611,418**	**277,335**	**1,336,967**
Species	**2012**			**2013**		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	340,164	154,296	318,784	358,380	162,560	354,337
Striped bass	7,915	3,590	29,438	7,444	3,377	34,987
Tilapia	23,000	10,433	56,350	18,428	8,359	40,049
Trout	36,226	16,432	55,388	44,496	20,183	71,869
Crawfish	95,762	43,437	160,717	106,924	48,500	144,347
Total Freshwater	**503,067**	**228,188**	**620,677**	**535,672**	**242,979**	**645,588**
Marine:						
Salmon	42,538	19,295	77,064	41,593	18,866	104,709
Clams	10,262	4,655	98,797	9,533	4,324	122,150
Mussels	739	335	9,451	699	317	9,804
Oysters	34,802	15,786	135,718	35,243	15,986	157,272
Shrimp	2,846	1,291	6,029	3,355	1,522	7,108
Total Marine	**91,187**	**41,362**	**327,059**	**90,422**	**41,015**	**401,043**
Miscellaneous	-	-	286,087	-	-	289,181
Totals	**594,254**	**269,550**	**1,233,823**	**626,094**	**283,994**	**1,335,812**
Species	**2014**			**2015**		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Freshwater:						
Catfish	307,498	139,480	331,963	317,445	143,992	347,021
Striped bass	8,110	3,679	31,142	8,111	3,679	30,831
Tilapia	18,999	8,618	42,745	18,999	8,618	42,745
Trout	48,456	21,979	76,206	45,854	20,799	76,748
Crawfish	134,168	60,858	172,071	140,411	63,690	199,350
Total Freshwater	**517,231**	**234,615**	**654,128**	**530,820**	**240,778**	**696,695**
Marine:						
Salmon	41,268	18,719	76,186	47,528	21,559	87,743
Clams	10,405	4,720	120,727	9,086	4,121	112,139
Mussels	699	317	9,861	717	325	10,201
Oysters	33,323	15,115	168,991	35,229	15,980	172,778
Shrimp	4,870	2,209	10,316	3,979	1,805	11,137
Total Marine	**90,565**	**41,080**	**386,081**	**96,539**	**43,790**	**393,998**
Miscellaneous	-	-	291,717	-	-	302,774
Totals	**607,796**	**275,695**	**1,331,926**	**627,359**	**284,568**	**1,393,468**

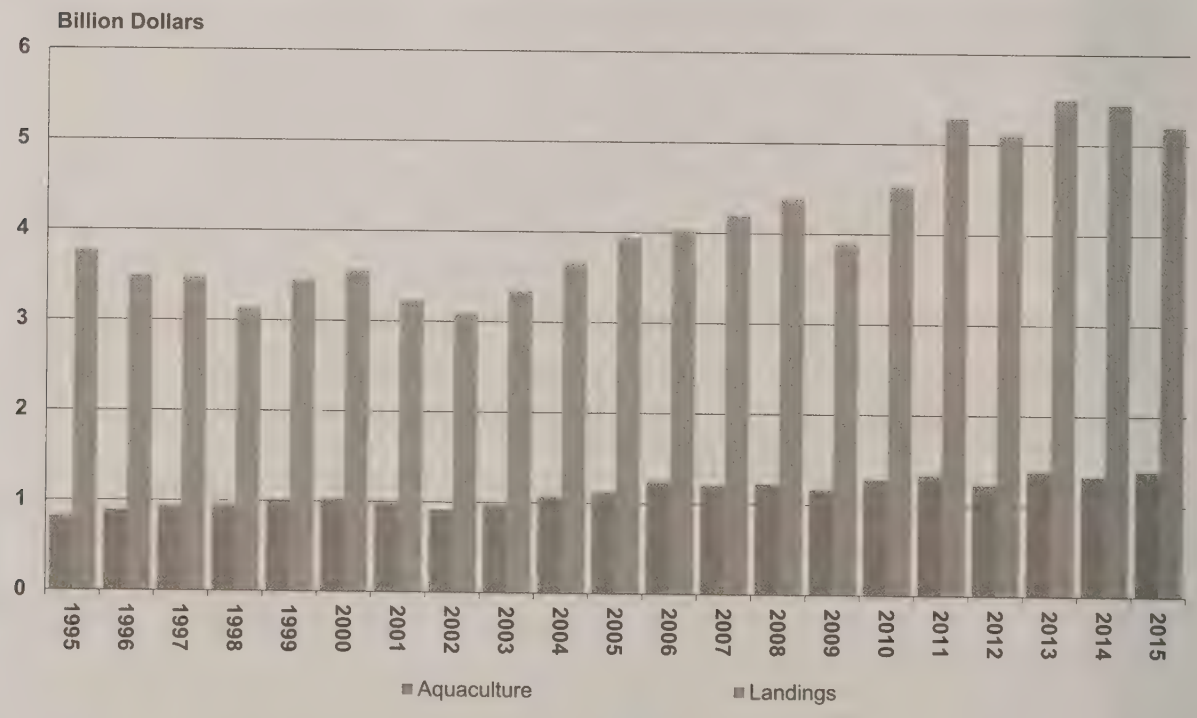
Note: Table may not add due to rounding. Clams, oysters, and mussels are reported as meat weights (excludes shell), while all other species such as shrimp and finfishes are reported as whole (live) weights. Some clam and oyster production is reported with U.S. commercial landings. Weights and values represent the final sales of products to processors and dealers. The "Miscellaneous" category includes baitfish, ornamental/tropical fish, alligators, algae, aquatic plants, eels, scallops, crabs, and others. The production volume of "Miscellaneous" is not reported because production value, but not weight, is reported for many species such as ornamental fishes.

Source: Fisheries Statistics Division, F/ST1, State Data, NMFS and Census of Aquaculture, USDA.

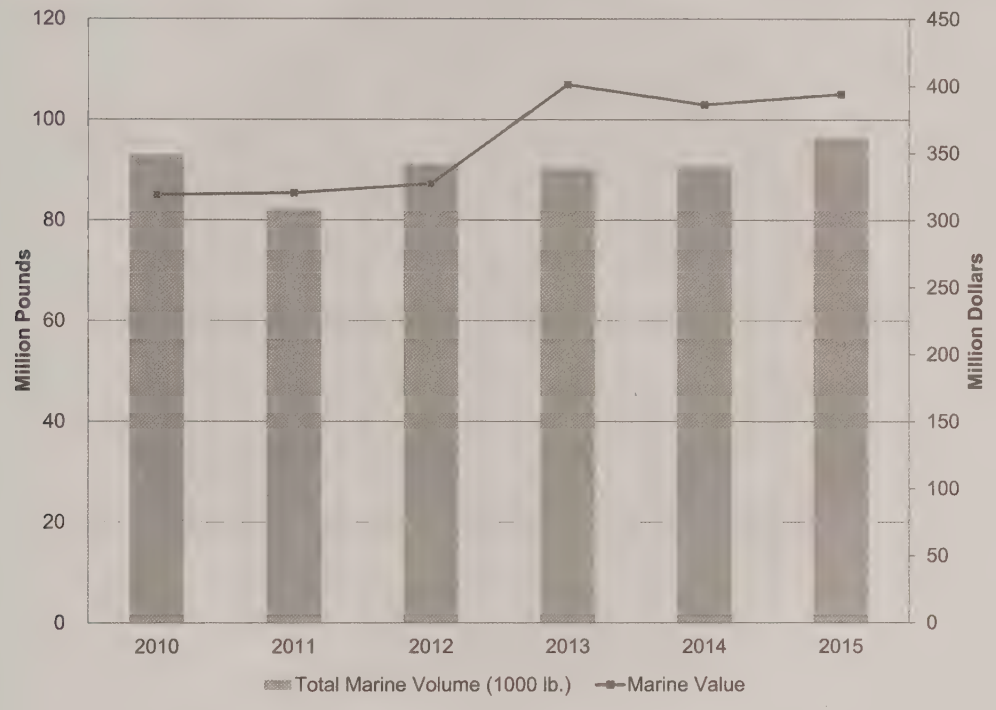
Volume of Domestic Commercial Landings and Aquaculture Production



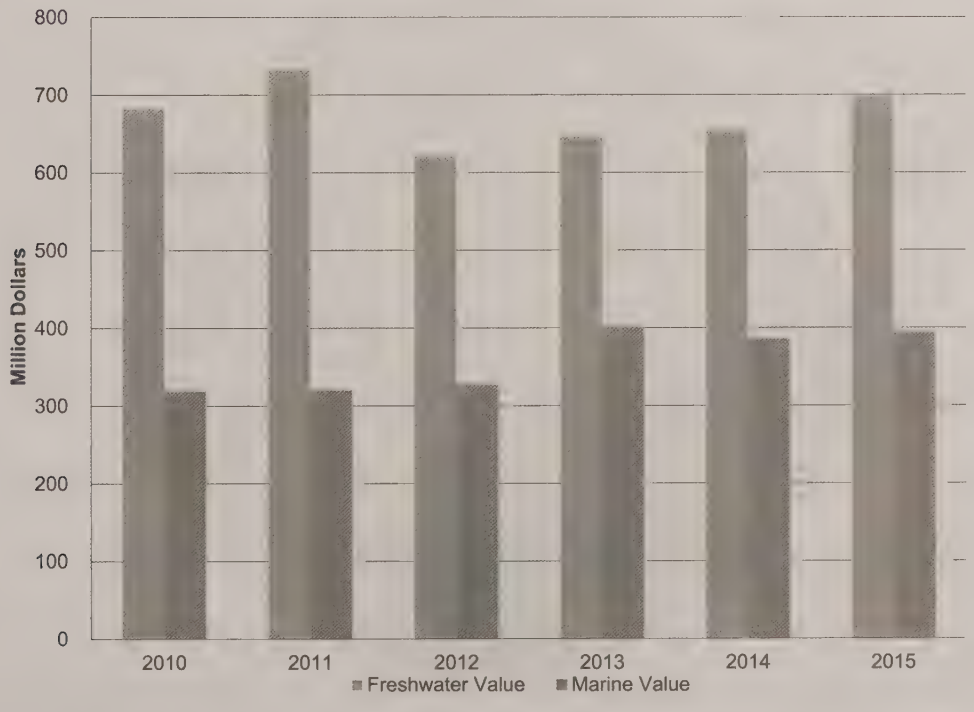
Value of Domestic Commercial Landings and Aquaculture Production



Estimated Marine Aquaculture Production Value and Volume, 2010-2015

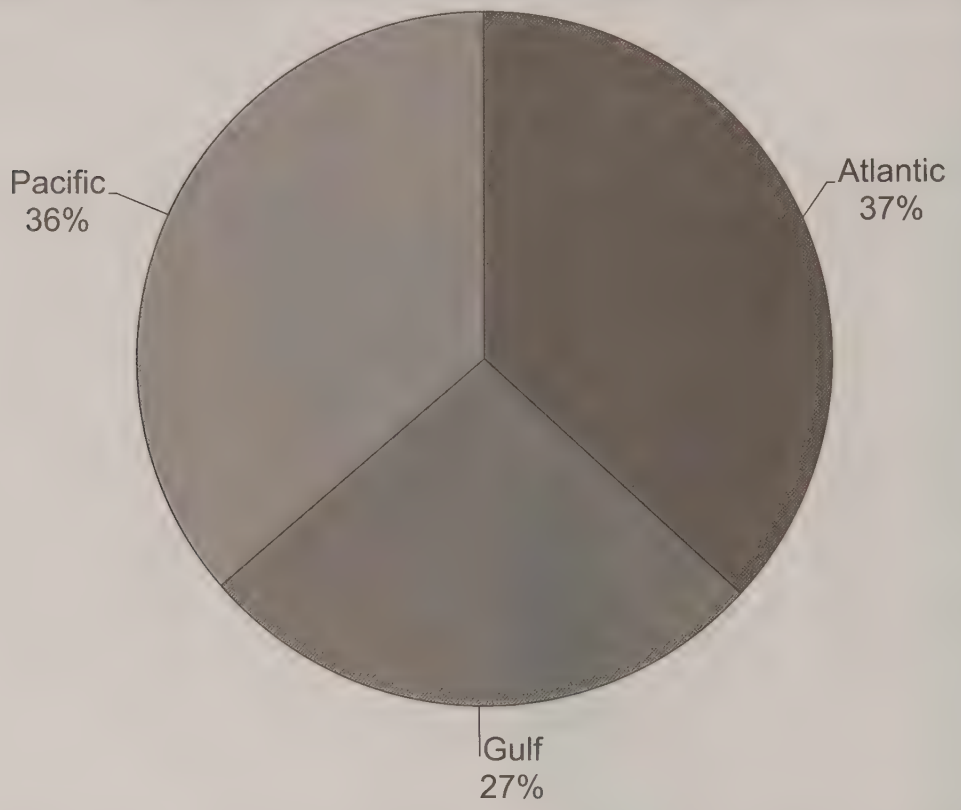


Estimated Value of Freshwater and Marine Aquaculture, 2010-2015

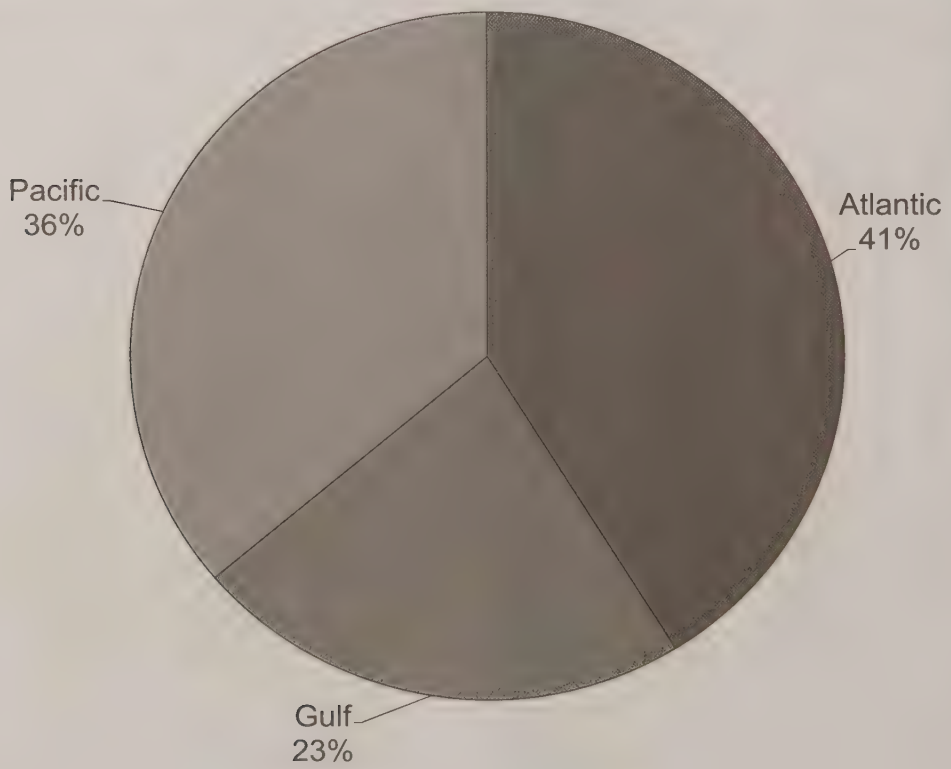


Note: Total marine + freshwater does not match the summary chart on p. 29 because the "Miscellaneous" category has been excluded from this graph.

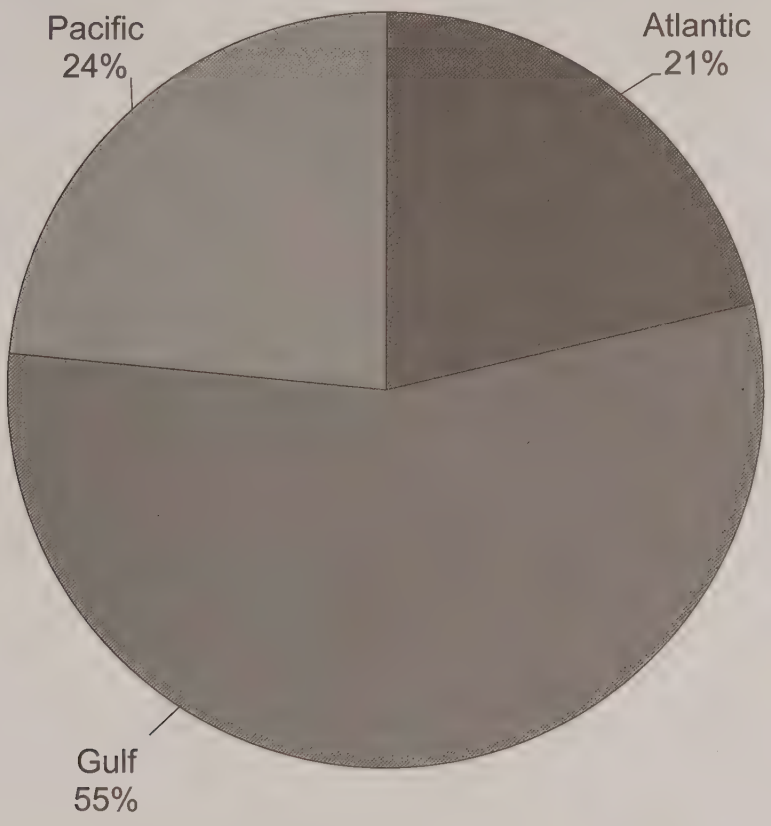
Estimated U.S. Marine Aquaculture Production by Region, by Volume, 2015



Estimated U.S. Marine Aquaculture Production by Region, by Value, 2015



Estimated Shellfish Aquaculture Production, by Volume, 2015



ESTIMATED SHELLFISH VOLUME AND VALUE BY REGION, 2015

Region	Total Shellfish Volume (pounds)	Total Shellfish Value (1000 $)
Atlantic	9,573,513	112,379
Gulf	24,870,284	86,829
Pacific	10,588,666	95,910

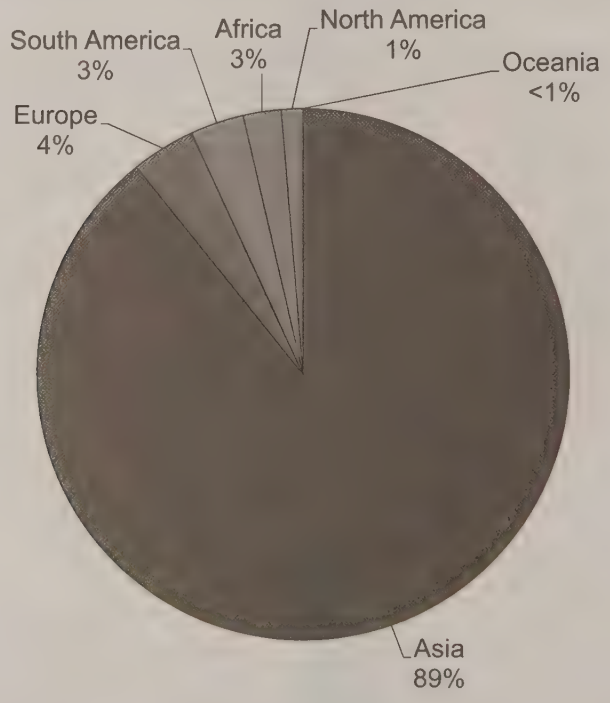
Note: Volume is reported in meat weight.

AQUACULTURE PRODUCTION OF FISH, CRUSTACEANS, AND MOLLUSKS, BY TOP COUNTRIES AND BY CONTINENT, 2015

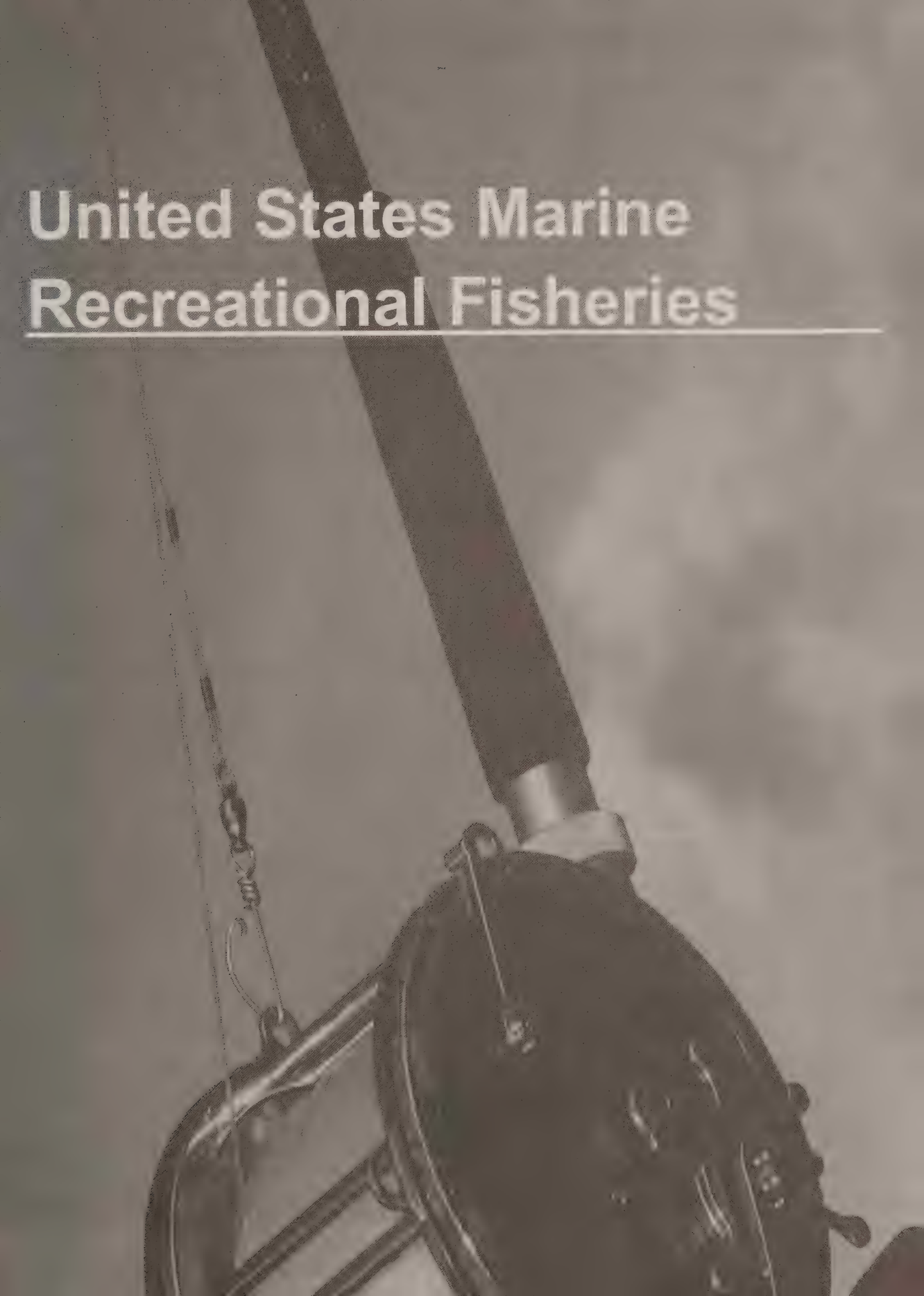
Country (ranked by volume)	Volume (metric tons)	Value (1000 US$)	Continent	Volume (metric tons)	Value (1000 US$)
China	47,610,040	76,792,942	Asia	68,392,709	125,489,608
India	5,235,017	10,456,749	Europe	2,975,159	11,429,505
Indonesia	4,342,465	7,911,027	South America	2,268,348	12,743,917
Viet Nam	3,438,378	8,510,506	Africa	1,772,391	3,507,158
Bangladesh	2,060,408	5,150,023	North America	1,005,028	3,212,346
Norway	1,380,839	5,823,110	Oceania	186,267	1,536,995
Egypt	1,174,831	1,831,035			
Chile	1,045,790	6,834,121			
Myanmar	997,306	1,644,829			
Thailand	897,096	2,349,711			
Philippines	781,798	1,869,973			
Japan	703,915	3,460,729			
Brazil	574,530	1,218,343			
South Korea	479,360	1,720,303			
Ecuador	426,410	2,303,203			
United States of America	425,973	1,149,612			
All others	5,025,746	18,893,313			
Total	**76,599,902**	**157,919,529**		**76,599,902**	**157,919,529**

Source: FAO, U.S. total may not agree with other estimates in this section.
Additional detail on global aquaculture production can be found in the world section.

Aquaculture Production by Continent, 2015



United States Marine Recreational Fisheries



DATA COLLECTION

Detailed information on marine recreational fishing is required to support a variety of fishery management purposes and is mandated by the Sustainable Fisheries Act, 1996 (PL 104-297) and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (PL 109-479). In 1981, following 2 years of preliminary surveys, NOAA Fisheries began a comprehensive survey of marine recreational fisheries covering all fishing modes (private/rental boat, party/charter boat, and shore), and including estuarine and brackish water. Although the annual recreational harvest is only about 9 percent of the total weight of U.S. harvest of finfish for states covered by this program, the fishing activities of millions of anglers are important to monitor because marine recreational fishing significantly impacts the stocks of many finfish species, and recreational catches surpass commercial landings of some species (see figure on page 24).

METHODS

On the Atlantic and Gulf coasts of the U.S., the Marine Recreational Information Program (MRIP) consists of the Coastal Household Telephone Survey (CHTS), the For-Hire Survey (FHS), and the Access Point Angler Intercept Survey (APAIS). Additional information is also obtained from state and regional logbook programs and is used to supplement survey data to produce more robust catch and effort estimates. The CHTS collects data on the number of shore and private boat fishing trips taken by residents of coastal counties. The APAIS collects data on species composition of catches, catch rates by species, lengths and weights of landed fish, the proportion of fishing trips by residents of non-coastal counties, and angler avidity. These data are combined to produce estimates of participation, catch and effort. Catch estimates are separated into two categories – harvested catch and catch released alive. Harvested catch includes landed fish and catch reported as dead. Whenever possible, field interviewers identify, count, weigh, and measure landed fish that are available in whole form. Angler reports are obtained for catch released alive and for all other harvested catch, such as catch released dead, used for bait, or filleted fish. Catch estimates are stratified by sub-region, state and wave (bimonthly sampling period), and further partitioned by species, fishing mode (private/rental boat, party/charter boat, and shore), primary area fished, and catch type.

On the Atlantic and Gulf Coasts, and in California, effort for the party and charter boat fishing modes is estimated through the FHS. This survey differs from the CHTS because it uses a telephone survey of boat captains as the primary method for estimating fishing effort. The weekly survey uses a directory of charter and party boats as the sampling frames. This survey estimates the number of angler-trips on boats included in the sampling frames. Dockside and on-board angler-intercept surveys collect catch data. The total catch of any one species is calculated as the product of the estimated total angler trips and the estimated mean catch per trip for that species. The FHS produces separate estimates for party and charter boat on the Atlantic and Gulf Coasts, while for-hire fishing vessels are not designated by type in California. The FHS effort methodology was initiated in 2000 on the Gulf coast, in 2001 on the Pacific coast, and in 2003 on the Atlantic coast. The FHS in the Gulf Coast only includes charter boats.

In Oregon and Washington, ocean boat surveys are used to produce catch and effort estimates. Oregon's Ocean Recreational Boat Survey (ORBS) and Washington's Ocean Sampling Program (OSP) consist of a field intercept survey for effort and catch of passenger and private boats. Estimates of mean catch per boat, catch per angler, total angler trips and boat trips are produced for each port inlet or port group stratified by time period and portioned by type of boat, type of trip and water area. Catch estimates in numbers of fish and weight are produced for each species of fish.

COVERAGE

In 2016, MRIP (conducted by NOAA Fisheries) included the Atlantic coast (ME-East FL), Gulf coast (MS-West FL), Puerto Rico, and Hawaii. Detailed information and access to the data are available on the Fisheries Statistics web page (www.st.nmfs.noaa.gov/recreational-fisheries). Care is advised when comparing catch estimates across an extended time series because of differences in sampling coverage through the years.

In the South Atlantic and Gulf sub-regions (NC-LA) party boat catch data have not been collected since 1985, so estimates for these sub-regions only include charter boats in the for-hire sector. Since 2014, marine recreational fishing in Louisiana has been monitored by the Louisiana Department of Wildlife and Fisheries, prior years were surveyed by NOAA Fisheries' survey program. Marine recreational

fishing in Texas is monitored by the Texas Parks and Wildlife Department and has not been surveyed by the NOAA Fisheries' survey program since 1985. Prior to 1998, on the Pacific coast, ocean boat trips and salmon trips were not sampled during certain waves because they were surveyed by state natural resource agencies. Recreational fishing data in Alaska are collected through an annual mail survey administered by the Alaska Department of Fish and Game. Harvest, effort and participation data are included, but not available for the current year. West Pacific U.S. territories have not been included in the national survey program since 1981. Hawaii was not surveyed between 1981 and 2002. Puerto Rico was not surveyed between 1981 and 2000. Since 2004, the numbers reported for Washington and Oregon include only private boat and for-hire fisheries. Data from other NOAA Fisheries and state surveys are not included in this report.

Historically, only about five percent of the annual recreational catch on the Atlantic and Gulf coasts is taken during Wave 1 (Jan/Feb). Costs to sample these months are very high due to low fishing activity. Therefore, in Jan/Feb of 1981 the surveys were not conducted in any region. In 1982, Jan/Feb data collection resumed on the Pacific and Gulf coasts and also on the Atlantic coast of Florida. In 2004, Jan/Feb data collection resumed in North Carolina. With a few exceptions the recreational statistics program has not collected data in Jan/Feb on the Atlantic coast north of Florida since 1980. A pilot study of fishing effort in Jan/Feb by coastal household residents was conducted in 2010 in NY, NJ, DE, MD, and VA. Results suggested only ~ 0.1 – 1.3% of coastal households reported fishing in Jan/Feb in these mid-Atlantic states, compared to the average fishing household rates of 1.25 – 4.5% in Mar/Apr and Nov/Dec (2007-2009 pooled), the two lowest periods of activity that are surveyed by the CHTS regularly. These extremely low levels of fishing incidence in Wave 1 are therefore difficult to survey precisely and suggest very low contribution to annual catches if the anglers are successful.

Time periods when the marine recreational statistics program has not been conducted: Nov/Dec (ME & NH) - 1987 to present; Mar/Apr (ME & NH) - 1986 to present; Jan/Feb (Northern CA & OR) – 1994; Jan/Feb (Southern CA & OR) – 1995 Nov/Dec (OR) – 1994; Nov/Dec (WA shore modes) – 2003; July - Dec (OR shore modes) – 2003; All Waves (CA - WA) - 1990 to 1993, 2004 to present; All Waves (WA) - 1993 to 1994.

CATCH AND EFFORT ESTIMATION

MRIP developed a new method for estimating catch rates using properly weighted intercept data collected via the APAIS. This new method was determined to result in unbiased samples and has been used for all catch estimates beginning in 2011. This new technique has also been applied to the previously collected intercept data from 2004-2010 to produce revised effort and catch estimates. The data presented in the tables are the products of this new estimation computational method.

DATA TABLES

The estimated harvests (numbers and weight of fish) for the continental U.S., Alaska, Hawaii, and Puerto Rico are presented. Harvest by weight are not available for Texas and Alaska, or Louisiana after 2013. Numbers of fish harvested and released alive are also presented for many important species groups. Estimated harvests are presented by sub-region and primary fishing area: inland (sounds, rivers, bays), state territorial seas (ocean to 3 miles from shore, except for Texas and Florida's Gulf coast, where state territorial seas extend to 10 miles from shore), and Exclusive Economic Zone (EEZ) (ocean from the outer edge of the state territorial seas to 200 miles from shore). The total numbers of estimated trips and participants are presented by state. Estimated anglers for Louisiana, Hawaii, Texas, California, Oregon, and Washington are not available.

2016 MARINE RECREATIONAL FISHING DATA

The 2016 national estimate of 9.6 million anglers was derived from two sources: 1) an estimate based on current survey data for the Atlantic and Gulf coasts, from Maine to Mississippi, and 2) estimates of the number of anglers for California, Oregon and Washington (since 2003) and Louisiana (since 2014) based on historical rates of participation in recreational saltwater fishing. Texas, Hawaii and Puerto Rico lack historical data adequate to estimate participation and are not included. NOAA fisheries has a growing concern and lack of confidence in the second portion of the total estimate which depends on historical participation rates to provide current estimates, especially over a long time frame. NOAA Fisheries will continue to provide that portion of the national estimate described in 1) above, and

will work with its state partners to explore ways to improve annual estimates of marine recreational angler participation rather than continuing to use the source described in 2) above. In particular, NOAA Fisheries is evaluating an approach to utilize estimates produced every five years by the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, which is sponsored by the U.S. Fish and Wildlife Service.

These 9.6 million marine recreational anglers made 63 million marine recreational fishing trips in the continental United States, Hawaii, and Puerto Rico. Alaska data are not available for the current year. The estimated total marine recreational catch was more than 371 million fish, of which 61 percent was released alive. The estimated total weight of harvested catch was almost 182 million pounds. The Atlantic coast accounted for the majority of trips (more than 58 percent) and catch (almost 57 percent). The Gulf coast accounted for nearly 33 percent of trips, and nearly 39 percent of the catch. The Pacific coast accounted for 6 percent of trips, and more than 3 percent of the catch. Nationally, most (almost 54 percent in numbers of fish) of the recreational catch came from inland waters, almost 34 percent from state territorial seas, and almost 11 percent from the EEZ. The majority of Atlantic, Gulf and Pacific trips fished primarily in inland waters.

ATLANTIC

In 2016, 6 million residents of Atlantic Coast states participated in marine recreational fishing. All participants, including visitors, took nearly 37 million trips and caught a total of nearly 210 million fish. Nearly 24 percent of the trips were made in east Florida, followed by almost 15 percent in North Carolina, almost 12 percent in New Jersey, almost 12 percent in New York, more than 6 percent in Massachusetts, more than 6 percent in Maryland, and almost 6 percent in Virginia. Together, South Carolina, Connecticut, and Rhode Island accounted for nearly 13 percent of the trips, and Delaware, Georgia, Maine, and New Hampshire accounted for the remaining trips. The most commonly caught non-bait species (in numbers of fish) were black sea bass, summer flounder, striped bass, scup, and bluefish. The largest harvests by weight were striped bass, bluefish, dolphinfish, summer flounder, and black sea bass.

Over the last ten years, the total annual catch of Atlantic croaker decreased overall from nearly 23 million fish in 2007 to over 11 million fish in 2016. In 2016, Atlantic croaker catch (over 11 million fish) was nearly 37 percent below the 10-year average of nearly 18 million fish. Annual catch of summer flounder has varied between 12 million fish and 24 million fish over the last ten years, with an average catch of 19 million fish per year. Of the 14 million caught in 2016, 12 million fish (almost 86%) were released alive. The species most commonly caught on Atlantic coast trips that fished primarily in federally managed waters were black sea bass, summer flounder, haddock, Atlantic cod, and Atlantic mackerel. More than 32 percent of the total Atlantic catch came on saltwater trips that fished primarily in the state territorial seas, and almost 57 percent came on trips that fished primarily in inland waters.

GULF OF MEXICO

In 2016, 2.7 million residents of Gulf Coast states participated in marine recreational fishing. All participants, including visitors, took almost 21 million trips and caught over 144 million fish. Nearly 64 percent of the trips were made in west Florida, followed by more than 12 percent in Alabama, nearly 11 percent in Louisiana, over 7 percent in Mississippi, and almost 6 percent in Texas. The most commonly caught non-bait species (numbers of fish) were spotted seatrout, gray snapper, red drum, sand seatrout, and red snapper. The largest harvests by weight were for spotted seatrout, red snapper, red drum, king mackerel, Spanish mackerel, and striped mullet.

Annual spotted seatrout catch declined to a low in 2014 but has increased in subsequent years. At 23 million fish, 2016 spotted seatrout catch was below the 10-year mean of nearly 28 million. Annual catch of red drum has varied between 4.9 million fish and nearly 12 million fish over the last ten years, with an average catch of almost 8.7 million fish per year. Of the 4.9 million caught in 2016, nearly 2.9 million fish (more than 58%) were released alive. The species most commonly caught on Gulf of Mexico trips that fished primarily in federally managed waters were red snapper, white grunt, red grouper, black sea bass, and gray triggerfish. Over 31 percent of the total Gulf catch came from trips that fished primarily in the state territorial seas, and almost 54 percent came from trips that fished primarily in inland waters.

PACIFIC

In 2016, marine recreational anglers took 3.8 million trips and caught a total of nearly 13 million fish. Almost 92 percent of the trips were made in California, followed by almost 5 percent in Oregon, and almost 4 percent in Washington. The most commonly caught non-bait species (in numbers of fish) were Pacific (chub) mackerel, kelp bass, black rockfish, barred surfperch, and lingcod. By weight, the largest harvests were lingcod, black rockfish, albacore, Pacific halibut, vermilion rockfish, and yellowtail.

From 2007 to 2016, total annual catch of California halibut has averaged over 179,000 fish. Catch declined to a low in 2011 but has increased in subsequent years. Of the total catch in 2016 (115,000 fish), almost 83 percent were released alive. Annual catch of Chinook salmon has varied between 28,000 fish and 114,000 fish over the last ten years, with an average catch of nearly 73,000 fish per year. Of the 43,000 caught in 2016, 19,000 fish (44%) were released alive. The most commonly caught Pacific coast species in federally managed waters were California scorpionfish, squarespot rockfish, kelp bass, vermilion rockfish, and Pacific (chub) mackerel. More than 70 percent of the total Pacific catch came from trips that fished primarily in the state territorial seas, and nearly 18 percent came from trips that fished primarily in inland waters.

ALASKA

In 2015, 319,000 marine recreational anglers took more than 632,000 trips and caught a total of 2.6 million fish. Commonly caught non-bait fishes included Pacific halibut, rockfishes, Pacific cod, lingcod, and the salmons: Chinook, chum, coho, pink and sockeye. The most abundantly harvested of the salmons were coho salmon and Chinook salmon. Current year statistics are not available.

HAWAII

In 2016, marine recreational anglers took over 1 million trips and caught a total of 2.8 million fish. The most commonly caught non-bait species (in numbers of fish) were yellowstripe goatfish, mackerel scad, convict tang, Hawaiian flagtail, and bluefin trevally. By weight, the largest harvests were yellowfin tuna, wahoo, dolphinfish, skipjack tuna, blue marlin, and bluefin trevally.

PUERTO RICO

In 2016, marine recreational anglers took almost 654,000 trips and caught a total of 1.5 million fish. The most commonly caught non-bait species (in numbers of fish) were dolphinfish, great barracuda, blue runner, yellowtail snapper, and red hind. By weight, the largest harvests were dolphinfish, wahoo, great barracuda, mutton snapper, yellowfin tuna, and yellow jack.

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Anchovies **							
Northern Anchovy	4	2	126	1	(1)	48	5
Other Anchovies	(1)	(1)	133	(1)	(1)	35	(1)
Barracudas							
Pacific Barracuda	96	44	22	64	28	14	117
Other Barracudas	1,091	496	191	621	280	135	776
Bluefish	11,792	5,346	4,153	9,884	4,484	4,566	12,287
Smallmouth Bonefish	79	35	26	102	46	26	88
Cartilaginous Fishes							
Skates/Rays **	316	140	87	868	391	110	356
Spiny Dogfish	87	38	16	199	88	29	93
Other Sharks **	7,454	3,377	161	2,606	1,182	155	3,789
Catfishes							
Freshwater Catfishes	1,912	865	913	1,168	529	536	1,665
Saltwater Catfishes	538	243	443	547	251	530	810
Cods and Hakes							
Atlantic Cod	356	161	58	1,165	529	188	1,314
Pacific Cod	2	1	58	2	1	(1)	2
Pacific Hake	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pacific Tomcod	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pollock	803	365	234	660	299	211	1,000
Red Hake	45	19	39	127	57	104	106
Walleye Pollock	-	-	-	-	-	-	-
Other Cods/Hakes	631	286	249	1,711	775	640	1,036
Damselfishes							
Blackspot Sergeant	-	-	10	-	-	16	4
Other Damselfishes	-	-	3	(1)	(1)	16	1
Dolphinfishes **	13,026	5,908	1,794	10,959	4,971	1,177	10,631
Drums							
Atlantic Croaker	2,851	1,292	7,012	2,771	1,255	5,568	3,597
Black Drum	2,060	933	683	1,736	787	800	2,814
California Corbina	12	5	6	28	13	19	14
Kingfishes	2,289	1,037	5,751	1,974	891	5,217	2,585
Queenfish	1	1	9	1	(1)	10	4
Red Drum	5,708	2,589	2,676	5,506	2,498	2,621	10,011
Sand Seatrout	1,481	670	3,124	1,164	528	3,158	1,565

See notes at end of table

continued

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Silver Perch	40	18	209	39	18	194	52
Spot	2,307	1,045	6,150	764	344	2,815	2,001
Spotted Seatrout	5,113	2,319	8,335	7,498	3,399	11,087	10,465
Weakfish **	126	58	112	90	38	92	156
White Croaker	13	6	48	13	5	42	20
Other Drum	268	121	329	220	100	389	300
**Eels ** **							
Conger Eels	7	3	2	4	1	1	24
Moray Eels	(1)	(1)	10	(1)	(1)	9	(1)
Other Eels	11	5	9	107	49	65	29
Hawaiian Flagtail	43	19	138	11	5	125	44
Flounders							
California Halibut **	154	69	15	195	88	21	242
Gulf Flounder	312	141	225	309	141	239	406
Rock Sole	2	1	1	1	1	1	2
Sanddabs	73	34	315	62	28	255	150
Southern Flounder	756	343	748	903	409	820	1,380
Starry Flounder	2	1	(1)	1	(1)	(1)	2
Summer Flounder	4,724	2,142	1,624	6,185	2,805	2,029	6,434
Winter Flounder	88	39	63	107	49	87	113
Other Flounders **	628	283	572	665	302	166	668
Goatfishes							
Manybar Goatfish	7	3	25	2	1	15	13
Whitesaddle Goatfish	2	1	4	(1)	(1)	3	5
Yellowstripe Goatfish	68	31	759	14	6	205	116
Other Goatfishes	329	149	263	31	14	23	80
Greenlings							
Kelp Greenling	52	23	36	34	16	23	46
Lingcod	2,331	1,058	382	2,153	976	329	1,869
Other Greenlings	2	1	1	1	(1)	(1)	8
Grunts							
Pigfish	356	160	983	232	104	662	280
White Grunt	1,326	602	1,527	1,320	597	1,535	1,639
Other Grunts	182	81	377	248	111	517	196
**Herrings ** **							
Pacific Herring	2	1	8	48	21	316	21
Other Herrings	2,512	1,137	35,814	3,209	1,456	33,271	3,175

See notes at end of table

continued

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Jacks							
Bigeye Scad	573	260	1,069	528	239	1,138	378
Bigeye Trevally	2	1	(1)	-	-	-	4
Blue Runner	2,167	984	2,275	1,669	756	2,550	1,838
Bluefin Trevally	289	131	104	150	69	73	250
Crevalle Jack	1,170	532	614	2,371	1,075	960	1,461
Florida Pompano	570	258	463	403	183	478	495
Giant Trevally	624	283	48	113	51	20	342
Greater Amberjack	2,303	1,044	129	2,516	1,143	159	2,187
Island Jack	10	4	9	23	11	15	27
Mackerel Scad	61	28	209	4	2	148	40
Yellowtail	1,814	823	130	535	243	76	784
Other Jacks	1,107	498	3,136	976	442	1,681	938
Mullets **							
Striped Mullet	2,303	1,043	2,254	2,510	1,135	2,374	3,060
Other Mullets	321	145	5,356	313	141	6,251	461
Porgies							
Pinfishes	1,615	731	5,017	996	451	3,663	1,353
Red Porgy	451	205	409	513	232	425	432
Scup **	4,620	2,096	4,208	4,259	1,933	3,839	4,647
Sheepshead	4,118	1,868	1,781	3,569	1,621	1,713	4,379
Other Porgies **	303	133	381	405	182	488	342
Puffers	422	190	926	154	68	356	275
Rockfishes							
Black Rockfish	2,305	1,046	972	2,139	971	892	2,058
Blue Rockfish	458	206	446	339	153	366	320
Bocaccio	202	91	137	152	69	81	231
Brown Rockfish	209	95	152	181	82	135	198
Canary Rockfish	95	42	68	78	36	57	63
Chilipepper Rockfish	13	6	30	11	5	22	16
Copper Rockfish	317	144	173	337	152	187	263
Gopher Rockfish	120	54	126	147	66	152	121
Greenspotted Rockfish	19	8	27	21	9	28	25
Olive Rockfish	113	51	107	116	52	113	83
Quillback Rockfish	21	10	10	24	12	13	25
Widow Rockfish	16	6	14	5	2	6	23
Yellowtail Rockfish	319	145	262	168	77	117	227
Other Rockfishes **	1,088	489	1,472	965	433	1,122	1,164

See notes at end of table

continued

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Sablefishes	4	2	24	4	2	1	2
Scorpionfishes	(1)	(1)	4	(1)	(1)	1	2
Sculpins							
Cabezon	154	70	35	138	62	33	141
Other Sculpins	4	1	8	2	(1)	3	5
Sea Basses							
Barred Sand Bass	141	64	72	44	20	20	143
Black Sea Bass	4,160	1,888	2,526	5,696	2,583	2,992	4,165
Epinephelus Groupers **	2,200	999	317	1,671	758	287	2,173
Groupers	-	-	3	32	14	9	17
Kelp Bass	151	68	86	226	102	125	175
Mycteroperca Groupers **	1,227	558	154	1,248	565	144	1,465
Spotted Sand Bass	5	2	4	12	6	12	10
Other Sea Basses	61	27	150	108	48	286	91
**Sea Chubs ** **							
Halfmoon	14	6	16	24	11	28	26
Highfin Rudderfish	-	-	9	-	-	5	3
Opaleye	19	8	23	20	9	23	33
Other Sea Chubs	23	10	28	13	6	13	43
Searobins	259	115	240	227	100	231	240
Silversides							
Jacksmelt	117	52	274	150	68	383	113
Other Silversides	12	5	173	2	(1)	105	29
**Smelts ** **							
Surf Smelt	(1)	(1)	10	(1)	(1)	(1)	(1)
Other Smelts	(1)	(1)	86	(1)	(1)	1	(1)
Snappers							
Blacktail Snapper	(1)	(1)	12	9	4	15	5
Bluestripe Snapper	15	6	35	8	4	52	8
Gray Snapper	1,987	902	2,034	2,612	1,185	2,414	2,287
Green Jobfish	230	105	21	46	20	10	111
Lane Snapper	225	101	351	309	140	368	268
Pink Snapper	30	13	23	27	12	17	124
Red Snapper	3,928	1,780	841	5,492	2,490	1,013	5,433
Vermilion Snapper	771	349	785	927	420	912	857
Yellowtail Snapper	880	398	796	773	349	777	762
Other Snappers **	802	366	255	775	349	360	751

See notes at end of table

continued

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Squirrel/Soldierfishes							
Bigscale Soldierfish	-	-	32	-	-	50	3
Squirrel Fishes	3	(1)	13	(1)	(1)	4	3
Whitetip Soldierfish	(1)	(1)	7	-	-	(1)	(1)
Other Soldierfishes	4	2	12	(1)	(1)	6	4
Sturgeons	32	14	1	16	7	(1)	15
Surfperches							
Barred Surfperch	603	274	763	337	153	461	386
Black Perch	12	4	16	12	4	16	19
Pile Perch	4	1	4	4	2	3	6
Redtail Surfperch	76	34	64	102	46	89	67
Shiner Perch	5	2	69	2	(1)	37	5
Silver Surfperch	30	14	124	15	7	55	12
Striped Seaperch	46	21	44	36	16	40	37
Walleye Surfperch	9	3	43	12	6	49	21
White Seaperch	2	1	8	1	(1)	5	3
Other Surfperches	44	19	91	29	13	65	50
Surgeonfishes							
Convict Tang	40	18	91	21	9	123	28
Goldring Surgeonfish	-	-	36	(1)	(1)	58	17
Unicornfishes	1	1	12	1	(1)	10	9
Other Surgeonfishes	35	16	78	13	6	43	53
Temperate Basses							
Striped Bass	17,140	7,774	1,311	20,037	9,087	1,560	21,628
White Perch	719	326	1,529	1,147	521	2,472	879
Other Temperate Basses	(1)	(1)	2	19	9	10	8
Toadfishes	8	4	11	7	3	7	25
Triggerfishes/Filefishes	503	230	216	869	390	363	743

See notes at end of table

continued

U.S. RECREATIONAL HARVEST, BY SPECIES, 2015 AND 2016

Species	2015(2,3)			2016 (2,3,4)			Average (2012-2016)
	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds	Metric tons	Total numbers (thousands)	Thousand pounds
Tunas and Mackerels							
Albacore	2,227	1,010	121	1,569	711	88	2,582
Atlantic Mackerel	2,552	1,158	5,144	2,999	1,359	5,768	2,152
Chub Mackerel	678	308	1,681	400	180	1,032	412
Kawakawa	116	52	33	38	18	9	82
King Mackerel **	4,375	1,984	485	4,384	1,987	572	4,312
Little Tunny/Atl. Bonito **	2,851	1,295	429	2,616	1,186	419	2,610
Pacific Bonito **	384	174	183	202	92	104	174
Skipjack Tuna	1,806	819	303	838	379	128	1,738
Spanish Mackerel	2,928	1,329	2,408	3,815	1,727	2,961	3,936
Wahoo	3,064	1,389	127	3,784	1,715	136	2,443
Yellowfin Tuna	13,276	6,023	514	8,612	3,907	255	11,372
Other Tunas/Mackerels **	2,844	1,287	246	4,383	1,989	394	3,277
Wrasses							
California Sheephead	89	41	29	89	39	32	104
Cunner	20	9	38	20	8	39	29
Hawaiian Hogfish	2	1	2	-	-	3	6
Razorfishes	23	11	49	13	6	33	56
Tautog	2,047	928	545	2,705	1,227	681	2,754
Other Wrasses	542	245	317	506	227	257	460
Other Fishes **	8,229	3,723	6,821	6,206	2,809	4,433	7,190
Grand Total	**189,575**	**85,917**	**153,192**	**181,628**	**82,306**	**144,625**	**202,535**

NOTES: (1) Number or pounds less than 1,000 or less than 1 metric ton.
(2) Texas harvest is estimated by numbers only (no weight) and includes only private and for-hire fisheries.
(3) Louisiana harvest is estimated by numbers only (no weight).
(4) Alaska data not available for current year.
** Fish included in these groups are not equivalent to those with similar names listed in the commercial tables.

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Anchovies **												
Northern Anchovy	1	(1)	22	1	(1)	25	(1)	(1)	(1)	1	(1)	48
Other Anchovies	(1)	(1)	35	-	-	-	-	-	-	(1)	(1)	35
Barracudas												
Pacific Barracuda	3	1	1	39	17	9	22	10	5	64	28	14
Other Barracudas	108	49	57	225	102	43	288	129	35	621	280	135
Bluefish	4,808	2,181	2,073	4,547	2,062	2,327	529	241	166	9,884	4,484	4,566
Smallmouth Bonefish	18	8	5	84	38	21	-	-	-	102	46	26
Cartilaginous Fishes												
Skates/Rays **	474	213	47	393	178	63	(1)	(1)	(1)	868	391	110
Spiny Dogfish	28	12	4	64	29	8	107	47	17	199	88	29
Other Sharks **	397	181	56	545	247	64	1,664	754	35	2,606	1,182	155
Catfishes												
Freshwater Catfishes	1,168	529	453	(1)	(1)	82	(1)	(1)	(1)	1,168	529	536
Saltwater Catfishes	316	146	192	230	105	338	(1)	(1)	1	547	251	530
Cods And Hakes												
Atlantic Cod	20	9	4	121	55	18	1,024	465	167	1,165	529	188
Pacific Cod	(1)	(1)	(1)	2	1	(1)	-	-	-	2	1	(1)
Pacific Hake	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pacific Tomcod	-	-	-	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Pollock	80	37	28	294	133	125	285	129	59	660	299	211
Red Hake	1	1	1	7	3	8	118	53	94	127	57	104
Other Cods/Hakes	41	18	41	21	9	7	1,650	748	592	1,711	775	640
Damselfishes												
Blackspot Sergeant	-	-	(1)	-	-	16	-	-	-	-	-	16
Other Damselfishes	-	-	(1)	(1)	(1)	16	-	-	-	(1)	(1)	16
Dolphinfishes **	37	17	2	1,238	562	163	9,684	4,392	1,012	10,959	4,971	1,177

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Drums												
Atlantic Croaker	2,296	1,041	4,578	440	199	942	35	15	49	2,771	1,255	5,568
Black Drum	865	392	380	854	387	415	17	8	5	1,736	787	800
California Corbina	4	2	2	24	11	17	(1)	(1)	(1)	28	13	19
Kingfishes	1,067	481	2,352	902	408	2,853	5	2	11	1,974	891	5,217
Queenfish	1	(1)	5	1	(1)	5	-	-	-	1	(1)	10
Red Drum	3,727	1,691	1,181	1,740	789	1,427	39	18	12	5,506	2,498	2,621
Sand Seatrout	1,045	474	2,577	120	54	576	(1)	(1)	5	1,164	528	3,158
Silver Perch	15	7	64	24	11	130	(1)	(1)	(1)	39	18	194
Spot	579	262	2,174	185	82	641	(1)	(1)	(1)	764	344	2,815
Spotted Seatrout	5,894	2,673	4,708	1,574	713	6,302	30	13	77	7,498	3,399	11,087
Weakfish **	51	22	51	37	16	39	1	(1)	2	90	38	92
White Croaker	3	1	8	9	4	33	(1)	(1)	1	13	5	42
Other Drum	24	11	43	193	88	343	2	1	3	220	100	389
**Eels ** **												
Conger Eels	(1)	(1)	(1)	(1)	(1)	(1)	3	1	1	4	1	1
Moray Eels	(1)	(1)	3	(1)	(1)	6	(1)	(1)	(1)	(1)	(1)	9
Other Eels	107	49	64	(1)	(1)	1	(1)	(1)	(1)	107	49	65
Hawaiian Flagtail	5	2	49	6	3	76	-	-	-	11	5	125
Flounders												
California Halibut **	116	53	14	77	34	6	3	1	(1)	195	88	21
Gulf Flounder	184	84	142	109	49	89	17	8	7	309	141	239
Rock Sole	(1)	(1)	(1)	1	1	1	(1)	(1)	(1)	1	1	1
Sanddabs	(1)	(1)	(1)	32	15	137	29	13	118	62	28	255
Southern Flounder	793	360	548	105	47	269	4	2	2	903	409	820
Starry Flounder	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	1	(1)	(1)
Summer Flounder	2,855	1,294	946	2,148	974	696	1,182	537	387	6,185	2,805	2,029
Winter Flounder	75	34	63	28	13	21	5	2	2	107	49	87
Other Flounders **	(1)	(1)	80	640	290	79	25	12	7	665	302	166

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Goatfishes												
Manybar Goatfish	(1)	(1)	4	2	1	11	-	-	(1)	2	1	15
Whitesaddle Goatfish	-	-	2	(1)	(1)	1	-	-	-	(1)	(1)	3
Yellowstripe Goatfish	1	(1)	38	14	6	167	-	-	-	14	6	205
Other Goatfishes	3	1	3	29	13	20	-	-	-	31	14	23
Greenlings												
Kelp Greenling	1	1	1	32	15	22	(1)	(1)	(1)	34	16	23
Lingcod	9	4	2	2,051	930	313	93	42	15	2,153	976	329
Other Greenlings	(1)	(1)	(1)	1	(1)	(1)	-	-	-	1	(1)	(1)
Grunts												
Pigfish	193	87	569	39	17	92	1	(1)	2	232	104	662
White Grunt	128	58	176	433	196	540	758	343	820	1,320	597	1,535
Other Grunts	64	30	77	123	54	250	60	27	190	248	111	517
Herrings **												
Pacific Herring	47	21	311	1	(1)	4	-	-	-	48	21	316
Other Herrings	2,035	923	22,328	1,055	480	9,540	118	53	1,403	3,209	1,456	33,271
Jacks												
Bigeye Scad	209	95	464	305	138	642	14	6	31	528	239	1,138
Bigeye Trevally	-	-	-	-	-	-	-	-	-	-	-	-
Blue Runner	164	74	227	1,096	497	1,990	409	185	334	1,669	756	2,550
Bluefin Trevally	37	17	18	112	51	54	1	1	1	150	69	73
Crevalle Jack	522	237	177	1,796	815	762	53	23	21	2,371	1,075	960
Florida Pompano	93	42	57	310	141	420	(1)	(1)	(1)	403	183	478
Giant Trevally	45	20	8	66	30	12	2	1	1	113	51	20
Greater Amberjack	(1)	(1)	(1)	269	123	17	2,247	1,020	142	2,516	1,143	159
Island Jack	2	1	2	22	10	13	-	-	-	23	11	15
Mackerel Scad	-	-	-	1	1	45	3	1	103	4	2	148
Whitemouth Trevally	-	-	-	-	-	-	-	-	-	-	-	-
Yellowtail	(1)	(1)	(1)	447	203	60	88	40	16	535	243	76
Other Jacks	42	17	37	533	242	1,010	401	183	634	976	442	1,681
Mullets **												
Striped Mullet	2,153	975	2,068	345	155	290	12	5	17	2,510	1,135	2,374
Other Mullets	307	139	4,341	5	2	1,861	1	(1)	48	313	141	6,251

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Porgies												
Pinfishes	452	205	1,936	445	201	1,375	99	45	352	996	451	3,663
Red Porgy	(1)	(1)	(1)	136	62	134	377	170	291	513	232	425
Scup **	3,010	1,365	2,659	1,016	461	963	234	107	217	4,259	1,933	3,839
Sheepshead	2,599	1,180	1,104	810	367	552	160	74	57	3,569	1,621	1,713
Other Porgies **	70	32	75	196	88	293	139	62	120	405	182	488
Puffers	68	30	147	85	38	208	(1)	(1)	1	154	68	356
Rockfishes												
Black Rockfish	19	9	10	2,099	952	872	21	10	10	2,139	971	892
Blue Rockfish	(1)	(1)	(1)	326	148	350	12	5	16	339	153	366
Bocaccio	(1)	(1)	(1)	102	47	51	50	22	31	152	69	81
Brown Rockfish	8	4	13	156	70	110	17	8	12	181	82	135
Canary Rockfish	(1)	(1)	(1)	73	34	53	5	2	4	78	36	57
Chilipepper Rockfish	-	-	-	3	1	5	9	4	17	11	5	22
Copper Rockfish	(1)	(1)	(1)	295	133	162	42	19	24	337	152	187
Gopher Rockfish	(1)	(1)	(1)	143	65	148	3	1	4	147	66	152
Greenspotted Rockfish	-	-	-	8	3	10	13	6	18	21	9	28
Olive Rockfish	3	1	2	95	43	90	17	8	21	116	52	113
Quillback Rockfish	-	-	-	22	11	12	2	1	1	24	12	13
Widow Rockfish	-	-	-	4	2	5	1	(1)	1	5	2	6
Yellowtail Rockfish	(1)	(1)	(1)	163	75	112	5	2	5	168	77	117
Other Rockfishes **	8	3	7	697	314	684	260	116	431	965	433	1,122
Sablefishes	-	-	-	4	2	1	(1)	(1)	(1)	4	2	1
Scorpionfishes												
California Scorpionfish	1	(1)	1	23	10	22	134	61	124	158	71	147
Other Scorpionfishes	(1)	(1)	(1)	(1)	(1)	1	(1)	(1)	(1)	(1)	(1)	1
Sculpins												
Cabezon	5	2	2	129	59	30	3	1	1	138	62	33
Other Sculpins	1	(1)	1	1	(1)	2	(1)	(1)	(1)	2	(1)	3

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Sea Basses												
Barred Sand Bass	4	2	2	27	12	13	13	6	6	44	20	20
Black Sea Bass	2,007	909	958	1,555	707	838	2,134	967	1,196	5,696	2,583	2,992
Epinephelus Groupers **	11	5	6	326	149	71	1,335	604	210	1,671	758	287
Other Groupers	-	-	1	32	14	8	-	-	-	32	14	9
Kelp Bass	5	2	3	186	84	103	35	16	19	226	102	125
Mycteroperca Groupers **	66	30	7	257	116	28	926	419	109	1,248	565	144
Spotted Sand Bass	12	6	12	(1)	(1)	(1)	(1)	(1)	(1)	12	6	12
Other Sea Basses	15	6	33	64	29	173	29	13	79	108	48	286
**Sea Chubs ** **												
Halfmoon	1	1	2	22	10	26	(1)	(1)	1	24	11	28
Highfin Rudderfish	-	-	2	-	-	3	-	-	-	-	-	5
Opaleye	6	3	8	14	6	15	(1)	(1)	(1)	20	9	23
Other Sea Chubs	1	1	1	11	5	12	-	-	-	13	6	13
Searobins	199	89	173	8	2	19	20	9	39	227	100	231
Silversides												
Jacksmelt	98	45	262	52	23	121	(1)	(1)	(1)	150	68	383
Other Silversides	1	(1)	42	(1)	(1)	63	(1)	(1)	1	2	(1)	105
**Smelts ** **												
Surf Smelt	(1)	(1)	(1)	(1)	(1)	(1)	-	-	-	(1)	(1)	(1)
Other Smelts	(1)	(1)	1	-	-	-	-	-	-	(1)	(1)	1
Snappers												
Blacktail Snapper	9	4	12	(1)	(1)	3	-	-	-	9	4	15
Bluestripe Snapper	2	1	9	4	2	37	2	1	6	8	4	52
Gray Snapper	855	388	1,008	1,073	487	948	685	310	458	2,612	1,185	2,414
Green Jobfish	1	(1)	(1)	45	20	9	-	-	(1)	46	20	10
Lane Snapper	33	15	41	94	43	133	181	82	195	309	140	368
Pink Snapper	-	-	-	25	11	11	2	1	6	27	12	17
Red Snapper	13	6	5	1,448	656	396	4,031	1,828	612	5,492	2,490	1,013
Vermilion Snapper	(1)	(1)	1	202	91	250	725	329	662	927	420	912
Yellowtail Snapper	5	2	6	259	117	280	509	230	491	773	349	777
Other Snappers **	43	19	54	411	185	206	322	145	101	775	349	360

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Squirrel/Soldierfishes												
Bigscale Soldierfish	-	-	1	-	-	49	-	-	-	-	-	50
Squirrel Fishes	-	-	1	(1)	(1)	3	(1)	(1)	(1)	(1)	(1)	4
Whitetip Soldierfish	-	-	(1)	-	-	-	-	-	-	-	-	(1)
Other Soldierfishes	-	-	-	(1)	(1)	5	-	-	1	(1)	(1)	6
Sturgeons	16	7	(1)	(1)	(1)	(1)	-	-	-	16	7	(1)
Surfperches												
Barred Surfperch	2	1	2	335	152	459	-	-	-	337	153	461
Black Perch	4	1	6	8	3	10	(1)	(1)	(1)	12	4	16
Pile Perch	2	1	2	2	1	1	-	-	-	4	2	3
Redtail Surfperch	1	(1)	1	101	46	88	-	-	-	102	46	89
Shiner Perch	1	(1)	11	2	(1)	26	-	-	-	2	(1)	37
Silver Surfperch	(1)	(1)	(1)	15	7	54	(1)	(1)	(1)	15	7	55
Striped Seaperch	3	1	3	33	15	37	-	-	-	36	16	40
Walleye Surfperch	1	1	4	11	5	45	-	-	-	12	6	49
White Seaperch	(1)	(1)	2	1	(1)	3	(1)	(1)	(1)	1	(1)	5
Other Surfperches	3	1	4	26	12	60	(1)	(1)	1	29	13	65
Surgeonfishes												
Convict Tang	1	(1)	4	20	9	119	-	-	-	21	9	123
Goldring Surgeonfish	-	-	2	(1)	(1)	56	-	-	-	(1)	(1)	58
Unicornfishes	1	(1)	1	-	-	9	-	-	-	1	(1)	10
Other Surgeonfishes	9	4	14	4	2	29	-	-	-	13	6	43
Temperate Basses												
Striped Bass	13,431	6,092	1,220	6,162	2,795	306	444	200	33	20,037	9,087	1,560
White Perch	1,144	519	2,467	3	2	5	(1)	(1)	(1)	1,147	521	2,472
Other Temperate Basses	19	9	8	-	-	2	-	-	-	19	9	10
Toadfishes	3	1	4	4	2	3	(1)	(1)	(1)	7	3	7
Triggerfishes/Filefishes	16	7	9	293	130	137	560	253	217	869	390	363

See notes at end of table.

continued

U.S. RECREATIONAL HARVEST, BY DISTANCE FROM SHORE AND SPECIES GROUP, 2016

Species	Distance from U.S. Shores									Grand Total		
	Inland			0 to 3 miles (2,3,4) (State Territorial Sea)			3 to 200 miles (Exclusive Economic Zone)					
	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)	Thousand pounds	Metric tons	Total number (thousands)
Tunas and Mackerels												
Albacore	-	-	-	1,496	678	85	73	33	3	1,569	711	88
Atlantic Mackerel	430	194	1,066	2,074	941	3,734	494	224	969	2,999	1,359	5,768
Chub Mackerel	98	44	242	281	128	732	20	8	58	400	180	1,032
Kawakawa	-	-	-	14	7	3	24	11	6	38	18	9
King Mackerel **	46	20	10	1,850	838	264	2,489	1,129	299	4,384	1,987	572
Little Tunny/Atlantic Bonito **	267	120	50	1,298	590	223	1,050	476	147	2,616	1,186	419
Pacific Bonito **	12	5	15	163	74	80	27	13	9	202	92	104
Skipjack Tuna	2	1	(1)	86	38	13	751	340	115	838	379	128
Spanish Mackerel	1,273	576	935	2,144	972	1,770	398	179	256	3,815	1,727	2,961
Wahoo	-	-	-	830	377	34	2,955	1,338	101	3,784	1,715	136
Yellowfin Tuna	-	-	-	185	84	8	8,427	3,823	247	8,612	3,907	255
Other Tunas/Mackerels **	1	(1)	1	1,028	467	163	3,354	1,522	230	4,383	1,989	394
Wrasses												
California Sheephead	1	(1)	(1)	72	32	25	16	7	6	89	39	32
Cunner	7	3	12	3	2	10	9	3	17	20	8	39
Hawaiian Hogfish	-	-	(1)	-	-	3	-	-	-	-	-	3
Razorfishes	-	-	-	13	6	33	-	-	-	13	6	33
Tautog	1,396	634	347	876	397	244	433	196	90	2,705	1,227	681
Other Wrasses	17	7	18	164	73	94	326	147	145	506	227	257
Other Fishes **	2,045	926	2,070	1,854	839	1,587	2,307	1,044	775	6,206	2,809	4,433
Grand Total	**63,146**	**28,617**	**71,106**	**60,742**	**27,528**	**57,197**	**57,739**	**26,161**	**16,323**	**181,628**	**82,306**	**144,625**

NOTES: Harvest shown represents Type A+B1 catch. Type A catch are fish brought back to the dock in a form that can be identified by trained interviewers. Type B1 catch are fish that are used for bait, released dead, or filleted; identification is by individual anglers.

(1) Number or pounds less than 1,000 or less than 1 metric ton.

(2) West Florida state territorial seas extend 0 to 10 miles.

(3) Includes all Oregon and Washington harvest (where distance from shore is unknown).

(4) Louisiana harvest is estimated by numbers only (no weight), includes harvest from inland and state territorial seas.

(5) Alaska data not available for current year.

(6) Texas estimates only the number harvested (no weight data) and only private and for-hire fisheries are included.

** Fish included in these groups are not equivalent to those with similar names listed in the commercial tables.

U.S. RECREATIONAL HARVEST AND TOTAL LIVE RELEASES, BY SPECIES GROUP, 2007-2016

Year	Barracudas			Bluefish		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	1,609	268	476	22,064	8,619	16,123
2008	1,317	207	458	20,107	6,845	14,001
2009	1,395	198	387	14,791	5,388	9,077
2010	874	150	320	16,630	6,244	10,488
2011	702	123	213	11,720	5,217	9,989
2012	843	166	283	12,038	5,640	9,121
2013	749	133	302	16,889	6,018	9,411
2014	999	217	314	10,831	6,094	11,098
2015	1,187	213	409	11,792	4,153	7,149
2016	684	149	327	9,884	4,566	8,458

Year	Cartilaginous Fishes			Catfishes		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	4,132	502	12,811	2,232	1,095	12,516
2008	2,659	338	12,355	1,640	890	12,556
2009	4,124	310	11,288	1,277	672	10,487
2010	2,203	291	9,584	1,899	980	15,229
2011	1,253	280	8,463	2,276	1,065	13,939
2012	1,354	231	9,226	2,634	1,744	13,729
2013	4,796	380	11,442	2,704	1,307	17,020
2014	3,514	316	11,004	2,872	1,082	9,131
2015	7,857	264	8,708	2,450	1,356	9,992
2016	3,673	294	8,886	1,715	1,066	9,443

Year	Cods and Hakes			Dolphinfishes		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	5,501	1,045	1,286	15,205	1,603	641
2008	6,986	1,238	1,480	14,171	1,704	500
2009	6,327	1,144	1,164	12,290	1,302	166
2010	7,897	1,333	1,551	9,900	1,241	242
2011	8,325	1,453	1,452	9,431	1,412	467
2012	3,573	858	1,143	11,159	1,418	226
2013	4,675	1,380	2,237	8,836	1,262	1,542
2014	3,537	1,117	2,281	9,177	1,217	557
2015	1,837	580	1,767	13,026	1,794	673
2016	3,664	1,143	2,961	10,959	1,177	127

See notes at end of table

continued

U.S. RECREATIONAL HARVEST AND TOTAL LIVE RELEASES, BY SPECIES GROUP, 2007-2016

Year	Drums			Flounders		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	53,890	54,439	65,711	12,896	5,078	19,977
2008	60,136	57,354	75,231	11,718	4,222	23,440
2009	50,622	45,897	60,499	9,455	3,686	24,869
2010	45,759	41,093	56,382	8,943	3,724	25,594
2011	52,784	47,068	60,926	9,685	4,344	22,414
2012	47,803	44,294	69,982	10,221	4,583	17,411
2013	53,028	49,157	72,766	11,415	5,244	16,873
2014	23,024	38,158	44,268	10,176	4,883	19,345
2015	22,270	34,443	43,650	6,738	3,142	12,861
2016	21,804	32,011	46,203	8,428	3,617	14,389

Year	Greenlings			Grunts		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	783	121	96	1,400	2,791	4,898
2008	568	98	78	1,940	3,499	6,145
2009	638	111	113	1,617	2,750	4,411
2010	655	128	139	1,366	2,068	3,809
2011	1,109	210	229	1,751	2,608	4,634
2012	1,297	243	234	2,106	3,072	5,096
2013	1,750	295	209	2,369	3,849	6,927
2014	1,993	327	202	2,440	3,943	6,096
2015	2,385	391	196	1,863	2,887	6,087
2016	2,187	353	202	1,800	2,714	6,159

Year	Herrings			Jacks		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	2,743	39,952	5,291	6,198	6,173	6,889
2008	3,111	50,994	2,768	7,312	5,035	7,265
2009	2,724	50,980	6,763	8,148	5,494	5,454
2010	1,621	27,646	3,994	5,273	3,312	5,010
2011	1,365	21,228	4,956	3,721	3,503	4,983
2012	3,497	23,207	8,795	5,421	4,016	6,353
2013	2,720	32,237	4,591	8,288	7,795	11,837
2014	3,995	32,679	13,168	10,028	7,752	12,972
2015	2,513	35,821	3,959	10,690	8,187	10,918
2016	3,256	33,586	9,272	9,290	7,297	8,783

See notes at end of table

continued

U.S. RECREATIONAL HARVEST AND TOTAL LIVE RELEASES, BY SPECIES GROUP, 2007-2016

Year	Mullets			Porgies		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	2,663	8,656	2,818	11,917	14,167	16,947
2008	3,745	9,764	1,579	13,314	15,864	22,732
2009	2,382	5,834	1,795	10,037	11,990	15,717
2010	3,724	6,849	3,011	13,756	13,210	19,549
2011	3,914	8,420	2,935	14,975	11,070	16,739
2012	4,031	9,092	2,668	11,604	11,714	24,113
2013	5,148	10,044	1,847	11,750	12,961	19,743
2014	2,981	7,562	3,252	11,564	13,626	21,881
2015	2,624	7,610	1,567	11,107	11,796	20,939
2016	2,823	8,625	1,660	9,742	10,128	21,983

Year	Puffers			Rockfishes		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	35	73	1,634	3,663	2,243	272
2008	54	161	1,899	2,765	1,759	222
2009	49	99	1,407	3,356	2,050	250
2010	137	253	1,067	3,213	2,045	303
2011	377	1,196	1,382	3,609	2,661	392
2012	446	710	2,259	4,081	3,146	418
2013	289	493	1,259	4,945	3,617	626
2014	65	129	1,653	5,087	3,732	574
2015	422	926	2,334	5,293	3,668	581
2016	154	356	1,808	4,682	3,291	526

Year	Sculpins			Sea Basses		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	91	28	91	8,908	3,623	19,786
2008	92	46	107	9,563	3,307	24,135
2009	120	37	77	7,662	3,208	18,252
2010	111	29	113	7,377	3,658	17,266
2011	152	73	159	4,113	2,319	12,739
2012	147	48	128	7,897	3,390	20,908
2013	134	47	266	8,207	2,764	18,278
2014	149	40	91	8,093	3,658	20,264
2015	158	43	64	7,946	3,311	15,261
2016	139	37	189	9,037	3,875	20,308

See notes at end of table

continued

U.S. RECREATIONAL HARVEST AND TOTAL LIVE RELEASES, BY SPECIES GROUP, 2007-2016

Year	Sea Chubs			Searobins		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	64	89	56	91	169	5,511
2008	60	137	30	75	286	6,554
2009	50	111	43	67	119	5,254
2010	39	96	82	48	89	4,362
2011	59	47	11	83	111	2,479
2012	105	105	48	110	122	6,784
2013	113	111	13	497	358	7,329
2014	182	107	29	105	138	3,548
2015	57	77	52	259	240	5,922
2016	57	70	41	227	231	8,407

Year	Silversides			Smelts		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	157	636	386	(1)	61	(1)
2008	342	886	492	1	9	(1)
2009	336	893	374	1	6	(1)
2010	158	497	209	(1)	3	(1)
2011	159	440	194	111	1,278	39
2012	131	437	272	1	38	9
2013	141	455	289	(1)	7	2
2014	160	423	236	(1)	6	(1)
2015	128	447	200	(1)	80	1
2016	151	488	202	(1)	1	(1)

Year	Snappers			Surfperches		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	9,892	5,513	12,919	324	624	690
2008	9,019	5,157	13,057	381	686	554
2009	8,173	4,240	9,115	232	537	510
2010	4,681	2,527	4,951	158	470	223
2011	6,611	2,581	5,259	523	824	714
2012	8,554	3,395	7,574	590	1,027	984
2013	14,801	5,936	13,406	461	809	819
2014	9,836	6,037	15,137	602	993	1,002
2015	8,869	5,153	12,093	831	1,226	912
2016	10,977	5,940	14,404	550	821	521

See notes at end of table

continued

U.S. RECREATIONAL HARVEST AND TOTAL LIVE RELEASES, BY SPECIES GROUP, 2007-2016

Year	Temperate Basses			Toadfishes		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	28,790	5,913	22,779	70	46	1,677
2008	33,110	6,027	17,895	17	18	2,005
2009	23,555	2,841	9,675	10	11	1,243
2010	24,495	4,965	10,071	47	34	1,174
2011	28,540	4,433	9,410	7	7	1,389
2012	20,575	3,419	10,835	20	17	1,696
2013	28,568	4,784	15,481	60	42	1,503
2014	24,369	3,075	10,282	28	37	1,374
2015	17,860	2,841	11,567	8	11	1,344
2016	21,203	4,042	14,984	7	7	979

Year	Triggerfishes/Filefishes			Tunas and Mackerels		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	971	484	533	46,910	8,528	5,491
2008	918	409	300	43,969	11,174	5,563
2009	870	386	405	42,242	8,794	4,497
2010	720	274	369	30,822	9,041	4,938
2011	705	272	288	26,529	10,267	4,362
2012	635	280	316	33,786	8,774	3,871
2013	900	340	557	39,604	10,845	6,348
2014	809	353	558	31,318	9,230	7,082
2015	503	216	998	37,102	11,674	4,017
2016	869	363	1,706	33,640	11,866	4,189

Year	Wrasses		
	Pounds Harvested (thousands)	Number Harvested (thousands)	Number Released (thousands)
2007	5,454	1,697	4,119
2008	4,223	1,472	2,969
2009	3,800	1,210	2,574
2010	4,409	1,426	3,182
2011	1,822	605	2,294
2012	2,940	890	2,384
2013	2,871	955	2,559
2014	5,168	1,413	4,747
2015	2,723	980	3,047
2016	3,332	1,045	4,613

NOTES: (1) Number or pounds less than 1,000 or less than 1 metric ton.
(2) Louisiana (2014-2016) harvest is estimated by numbers only (no weight).
(3) Alaska data not available for current year.
(4) Texas harvest is estimated by numbers only (no weight) and includes only private and for-hire fisheries.

U.S. RECREATIONAL FINFISH HARVESTED AND RELEASED, 2015 AND 2016

State	2015		
	Pounds Harvested (1) (thousands)	Number Harvested (thousands)	Number Released (1) (thousands)
California	13,136	8,447	4,696
Oregon	2,831	677	144
Washington	3,970	586	131
Connecticut	6,170	1,838	3,826
Maine	871	1,069	686
Massachusetts	10,029	6,471	5,780
New Hampshire	872	526	1,072
Rhode Island	4,037	1,321	3,204
Delaware	470	377	1,109
Maryland	6,093	3,191	9,168
New Jersey	13,160	4,586	14,873
New York	20,040	6,073	15,491
Virginia	5,660	5,931	7,799
Florida	51,985	65,259	82,157
Georgia	899	1,210	2,378
North Carolina	11,917	10,363	21,137
South Carolina	3,428	6,080	11,852
Alabama	12,040	8,368	9,484
Louisiana	.	7,714	.
Mississippi	4,625	4,315	4,652
Hawaii	15,831	4,638	541
Texas	-	1,917	-
Alaska	-	1,623	1,002
Puerto Rico	1,511	612	345
Grand Total	**189,575**	**153,192**	**201,526**

State	2016		
	Pounds Harvested (1,2) (thousands)	Number Harvested (thousands)	Number Released (1,2) (thousands)
California	8,219	6,908	4,748
Oregon	2,400	566	104
Washington	2,957	505	94
Connecticut	5,342	2,421	8,159
Maine	881	1,867	1,368
Massachusetts	10,566	5,940	8,653
New Hampshire	965	1,027	1,078
Rhode Island	3,551	1,337	4,950
Delaware	611	227	1,942
Maryland	7,035	3,793	11,126
New Jersey	16,374	5,118	19,158
New York	16,727	5,653	20,817
Virginia	5,974	5,941	8,788
Florida	55,769	63,136	86,203
Georgia	1,479	1,288	2,478
North Carolina	11,994	8,618	21,784
South Carolina	2,118	3,048	7,459
Alabama	11,050	7,421	11,170
Louisiana	-	8,210	-
Mississippi	6,175	5,731	6,147
Hawaii	7,701	2,483	382
Texas	-	2,207	-
Alaska	-	-	-
Puerto Rico	3,739	1,178	353
Grand Total	**181,628**	**144,625**	**226,961**

NOTES: Harvest shown represents Type A+B1 catch. Type A catch are fish brought back to the dock in a form that can be identified by trained interviewers. Type B1 catch are fish that are used for bait, released dead, or filleted; identification is by individual anglers. Live releases are type B2, fish that are caught and released alive; identification is by individual anglers.

(1)TX estimates only number harvested (no weight or release data) and only private and for-hire fisheries are included; (2) Louisiana only estimates harvest (no weight or release data); (3) Oregon and Washington estimates include only private and for-hire fisheries. (4) Alaska data not available for current year.

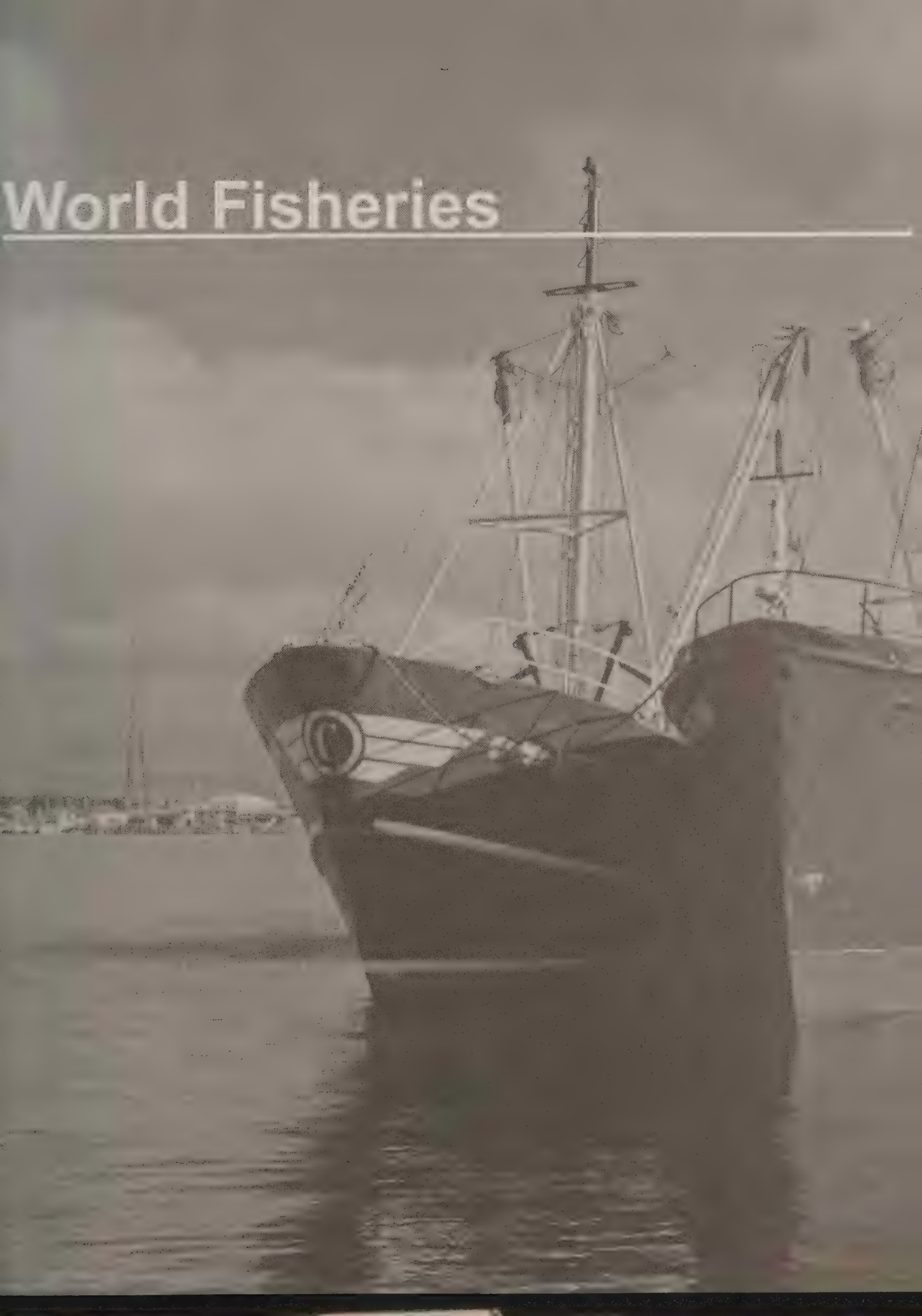
U.S. RECREATIONAL NUMBERS OF ANGLERS AND TRIPS BY STATE, 2015 AND 2016

State	2015			
	Out-of-State Anglers	In-State Anglers		Number of Angler Trips
		From Coastal Counties (1)	From Non-Coastal Counties	
	Numbers in thousands			
California	-	-	-	3,705
Oregon	-	-	-	214
Washington	-	-	-	173
Connecticut	57	252	-	1,341
Maine	74	67	4	414
Massachusetts	199	428	85	2,181
New Hampshire	54	54	6	221
Rhode Island	175	123	-	879
Delaware	84	67	-	495
Maryland	352	364	31	2,319
New Jersey	448	515	24	4,287
New York	53	555	10	3,235
Virginia	203	359	59	2,083
Florida	3,219	2,415	-	22,058
Georgia	70	81	80	590
North Carolina	830	479	239	4,646
South Carolina	684	192	157	2,670
Alabama	455	225	151	2,324
Louisiana	-	-	-	2,424
Mississippi	114	195	48	1,551
Hawaii	-	-	-	1,431
Texas	-	-	-	1,043
Alaska	188	131	-	632
Puerto Rico	-	-	-	668
Grand Total (5)				**61,585**

State	2016			
	Out-of-State Anglers	In-State Anglers		Number of Angler Trips
		From Coastal Counties (1,2)	From Non-Coastal Counties	
	Numbers in thousands			
California	-	-	-	3,503
Oregon	-	-	-	178
Washington	-	-	-	138
Connecticut	88	297	-	1,644
Maine	110	114	13	573
Massachusetts	289	476	73	2,384
New Hampshire	57	69	8	293
Rhode Island	243	149	-	1,159
Delaware	168	104	-	910
Maryland	352	453	23	2,383
New Jersey	378	507	32	4,306
New York	113	780	29	4,294
Virginia	244	394	86	2,108
Florida	2,980	2,451	-	22,047
Georgia	49	110	89	696
North Carolina	1,066	541	281	5,411
South Carolina	510	163	102	1,909
Alabama	465	274	176	2,567
Louisiana	-	-	-	2,242
Mississippi	106	156	83	1,512
Hawaii	-	-	-	1,024
Texas	-	-	-	1,187
Alaska	-	-	-	-
Puerto Rico	-	-	-	654
Grand Total (5)				**63,121**

NOTES: (1) All counties in Puerto Rico, Rhode Island, Connecticut, Delaware, and Florida are considered coastal. (2) Alaska estimates are presented as coastal, current year data not available. (3) Louisiana, Hawaii, Texas, California, Oregon, and Washington angler data not available. (4) Out-of-state angler estimates are not additive across states.

World Fisheries



WORLD AQUACULTURE AND COMMERCIAL CATCHES, 2006-2015

Year	World Aquaculture			World Commercial Catch			Grand Total
	Inland	Marine	Total	Inland	Marine	Total	
	Metric tons			Metric tons			
	Live weight			Live weight			
2006	27,982,287	19,274,230	47,256,517	9,829,794	80,328,763	90,158,557	137,415,074
2007	29,929,903	20,010,986	49,940,889	10,078,056	80,363,672	90,441,728	140,382,617
2008	32,391,076	20,523,624	52,914,700	10,164,899	79,286,565	89,451,464	142,366,164
2009	34,270,264	21,415,862	55,686,126	10,328,718	78,805,106	89,133,824	144,819,950
2010	36,886,166	22,078,199	58,964,366	11,035,796	76,730,613	87,766,409	146,730,775
2011	38,567,427	23,229,129	61,796,556	10,716,792	81,327,431	92,044,223	153,840,779
2012	42,047,045	24,395,723	66,442,769	11,177,128	78,187,747	89,364,875	155,807,644
2013	44,780,938	25,432,765	70,213,702	11,229,711	79,213,040	90,442,751	160,656,453
2014	46,893,824	26,787,647	73,681,470	11,336,810	79,804,562	91,141,372	164,822,842
2015	48,759,355	27,840,547	76,599,902	11,465,775	81,164,685	92,630,460	169,230,362

Note: Data for marine mammals and aquatic plants are excluded.
Source: Food and Agriculture Organization of the United Nations (FAO).

WORLD AQUACULTURE AND COMMERCIAL CATCHES OF FISH, CRUSTACEANS, AND MOLLUSKS, 2014-2015

Species group	2014			2015		
	Aquaculture	Catch	Total	Aquaculture	Catch	Total
	Metric tons			Metric tons		
	Live weight			Live weight		
Herrings, sardines, anchovies	-	15,588,847	15,588,847	-	16,733,194	16,733,194
Carps, barbels, cyprinids	28,229,332	1,559,590	29,788,922	29,120,963	1,524,090	30,645,053
Cods, hakes, haddocks	1,702	8,708,602	8,710,304	79	8,932,274	8,932,353
Tunas, bonitos, billfishes	34,837	7,479,746	7,514,583	36,827	7,388,653	7,425,480
Salmons, trouts, smelts	3,431,155	949,211	4,380,366	3,410,890	1,102,952	4,513,842
Tilapias	5,315,558	721,530	6,037,088	5,670,981	709,400	6,380,381
Flatfish	195,036	1,038,670	1,233,706	203,345	970,254	1,173,599
Sharks, rays, chimaeras	-	764,981	764,981	-	756,075	756,075
Shads	310	626,093	626,403	387	659,769	660,156
River eels	250,122	10,540	260,662	273,932	8,020	281,952
Sturgeons, paddlefish	87,936	273	88,209	105,132	262	105,394
Other fishes	12,130,356	38,595,593	50,725,949	13,084,936	39,260,010	52,344,946
Shrimp	4,679,368	3,370,947	8,050,315	4,875,793	3,439,907	8,315,700
Crabs	352,997	1,726,880	2,079,877	359,041	1,688,882	2,047,923
Lobsters	1,615	306,568	308,183	1,624	308,947	310,571
Krill	-	317,615	317,615	-	250,846	250,846
Other crustaceans	2,012,762	854,496	2,867,258	2,114,891	873,958	2,988,849
Clams, cockles, arkshells	5,354,353	771,189	6,125,542	5,392,277	610,911	6,003,188
Oysters	5,147,053	130,754	5,277,807	5,321,737	146,828	5,468,565
Squids, cuttlefishes, octopus	1	4,855,295	4,855,296	1	4,711,605	4,711,606
Mussels	1,875,727	90,101	1,965,828	1,878,475	118,869	1,997,344
Scallops	1,914,667	740,559	2,655,226	2,081,616	572,963	2,654,579
Abalones, winkles, conchs	361,061	155,449	516,510	384,917	165,492	550,409
Other mollusks	1,412,345	1,149,499	2,561,844	1,372,967	1,106,521	2,479,488
Sea urchins, other echinoderms	208,992	112,964	321,956	215,373	114,503	329,876
Miscellaneous	684,185	515,380	1,199,565	693,720	475,275	1,168,995
Total	**73,681,470**	**91,141,372**	**164,822,842**	**76,599,902**	**92,630,460**	**169,230,362**

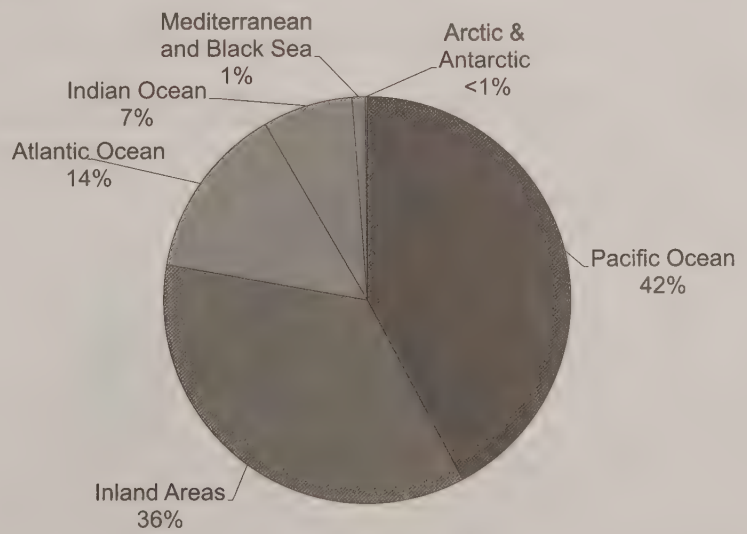
Note: Data for marine mammals and aquatic plants are excluded.
Source: Food and Agriculture Organization of the United Nations (FAO).

WORLD AQUACULTURE AND COMMERCIAL CATCHES BY COUNTRY OF FISH, CRUSTACEANS, AND MOLLUSKS, 2014-2015

Country	2014			2015		
	Aquaculture	Catch	Total	Aquaculture	Catch	Total
	----------Metric tons---------			----------Metric tons---------		
	Live weight			Live weight		
China	45,468,960	17,106,547	62,575,507	47,610,040	17,591,299	65,201,339
Indonesia	4,253,896	6,436,715	10,690,611	4,342,465	6,485,320	10,827,785
India	4,881,019	4,982,088	9,863,107	5,235,017	4,843,388	10,078,405
Vietnam	3,340,015	2,694,641	6,034,656	3,438,378	2,757,314	6,195,692
United States	421,189	4,975,947	5,397,136	425,973	5,038,791	5,464,764
Peru	115,269	3,573,371	3,688,640	90,975	4,824,050	4,915,025
Russia	161,214	4,259,055	4,420,269	151,207	4,457,138	4,608,345
Japan	647,913	3,641,494	4,289,407	703,915	3,460,168	4,164,083
Bangladesh	1,956,925	1,591,190	3,548,115	2,060,408	1,623,837	3,684,245
Norway	1,332,497	2,301,697	3,634,194	1,380,839	2,293,698	3,674,537
Myanmar	962,156	1,970,550	2,932,706	997,306	1,953,510	2,950,816
Philippines	788,029	2,246,299	3,034,328	781,798	2,151,502	2,933,300
Chile	1,214,523	2,175,486	3,390,009	1,045,790	1,786,633	2,832,423
Thailand	897,863	1,670,035	2,567,898	897,096	1,693,050	2,590,146
South Korea	480,394	1,736,346	2,216,740	479,360	1,648,993	2,128,353
Malaysia	275,682	1,464,646	1,740,328	246,205	1,491,974	1,738,179
Mexico	194,224	1,519,864	1,714,088	211,562	1,467,203	1,678,765
Egypt	1,137,091	344,791	1,481,882	1,174,831	344,112	1,518,943
Morocco	1,189	1,365,149	1,366,338	1,050	1,364,643	1,365,693
Iceland	8,434	1,076,769	1,085,203	8,430	1,317,349	1,325,779
All others	5,142,988	24,008,692	29,151,680	5,317,257	24,036,488	29,353,745
Total	**73,681,470**	**91,141,372**	**164,822,842**	**76,599,902**	**92,630,460**	**169,230,362**

Note: For the U.S., the weight of clams, oysters, scallops, and other mollusks includes the shell weight. This weight is not included in U.S. landings shown elsewhere. Data for marine mammals and aquatic plants are excluded.
Source: Food and Agriculture Organization of the United Nations (FAO).

World Aquaculture and Commercial Catches, By Area, 2015



WORLD AQUACULTURE AND COMMERCIAL CATCHES BY AREA OF FISH, CRUSTACEANS, AND MOLLUSKS, 2014-2015

Marine Areas	2014			2015		
	Aquaculture	Catch	Total	Aquaculture	Catch	Total
	----------Metric tons----------			----------Metric tons----------		
	Live weight			Live weight		
Atlantic Ocean:						
Northeast	2,153,901	8,655,961	10,809,862	2,191,938	9,137,549	11,329,487
Northwest	110,151	1,841,777	1,951,928	126,507	1,842,608	1,969,115
Eastern central	8,339	4,420,711	4,429,050	8,778	4,342,492	4,351,270
Western central	151,248	1,171,608	1,322,856	131,252	1,412,556	1,543,808
Southeast	2,850	1,564,481	1,567,331	3,045	1,680,827	1,683,872
Southwest	87,129	2,419,529	2,506,658	90,949	2,427,725	2,518,674
Mediterranean and Black Sea	436,543	1,112,901	1,549,444	457,267	1,312,920	1,770,187
Indian Ocean:						
Eastern	529,280	6,496,545	7,025,825	516,175	6,358,707	6,874,882
Western	439,008	4,795,993	5,235,001	564,089	4,659,209	5,223,298
Pacific Ocean:						
Northeast	107,044	3,148,706	3,255,750	136,847	3,164,604	3,301,451
Northwest	17,451,794	21,949,674	39,401,468	18,394,967	22,050,596	40,445,563
Eastern central	183,712	1,903,802	2,087,514	212,561	1,695,331	1,907,892
Western central	3,409,887	12,547,195	15,957,082	3,369,313	12,581,999	15,951,312
Southeast	1,562,450	6,888,218	8,450,668	1,493,367	7,702,987	9,196,354
Southwest	154,311	575,152	729,463	143,491	550,933	694,424
Arctic	-	4	4	-	15	15
Antarctic	-	312,305	312,305	-	243,627	243,627
Inland Areas:						
Africa	1,689,288	2,874,913	4,564,201	1,749,729	2,860,131	4,609,860
Asia	43,581,526	7,499,114	51,080,640	45,447,129	7,582,037	53,029,166
Europe	473,529	397,847	871,376	475,304	435,062	910,366
North America	422,559	182,553	605,112	414,290	208,033	622,323
South America	722,357	364,081	1,086,438	667,729	362,482	1,030,211
Oceania	4,564	18,302	22,866	5,175	18,030	23,205
Total	**73,681,470**	**91,141,372**	**164,822,842**	**76,599,902**	**92,630,460**	**169,230,362**

Note: Data for marine mammals and aquatic plants are excluded.
Source: Food and Agriculture Organization of the United Nations (FAO).

WORLD IMPORTS AND EXPORTS OF SEVEN FISHERY COMMODITY GROUPS, BY LEADING COUNTRIES, 2011-2015

Country	2011	2012	2013	2014	2015
	Thousand U.S. dollars				
IMPORTS:					
United States	17,466,321	17,556,581	18,975,440	21,305,873	19,820,311
Japan	17,340,620	17,985,530	15,318,515	14,844,738	13,460,585
China	7,572,593	7,441,250	7,982,251	8,501,380	8,467,702
Spain	7,309,435	6,371,882	6,390,868	6,982,926	6,440,496
France	6,566,623	6,033,942	6,506,208	6,596,770	5,730,494
Italy	6,211,012	5,496,804	5,732,819	6,094,933	5,537,899
Germany	5,513,806	5,193,746	5,414,454	6,029,092	5,132,326
Sweden	3,633,264	3,619,179	4,485,916	4,783,346	4,424,106
South Korea	3,935,296	3,738,467	3,644,958	4,271,146	4,349,541
United Kingdom	4,257,951	4,246,019	4,494,884	4,537,105	4,082,971
Other Countries	50,171,377	51,309,398	54,459,746	57,268,884	50,106,054
Total	**129,978,298**	**128,992,798**	**133,406,059**	**141,216,193**	**127,552,485**
EXPORTS:					
China	16,959,557	18,211,620	19,539,377	20,984,231	19,737,723
Norway	9,456,756	8,898,196	10,367,544	10,802,761	9,187,704
Viet Nam	6,241,707	6,276,751	6,886,846	8,028,649	6,756,070
United States	5,788,126	5,752,005	5,963,088	6,143,310	5,911,022
Thailand	8,141,815	8,132,389	7,057,194	6,633,959	5,677,394
India	3,539,109	3,404,437	4,601,717	5,600,900	4,871,591
Chile	4,504,659	4,348,178	4,985,211	5,854,098	4,812,362
Canada	4,198,638	4,223,549	4,364,195	4,527,531	4,704,012
Denmark	4,482,925	4,147,122	4,664,309	4,764,274	4,269,659
Spain	4,185,692	3,904,813	3,946,949	4,041,371	3,751,925
Other Countries	62,145,758	63,157,529	66,947,314	71,148,519	63,665,623
Total	**129,644,742**	**130,456,589**	**139,323,744**	**148,529,603**	**133,345,085**

NOTE: Data for 2011-2014 are revised and for 2015 are preliminary. Data on imports and exports cover the international trade of 205 countries or areas. Usually, exports are recorded at their free-on-board (FOB) value, while imports are recorded at their cost, insurance, and freight (CIF) value. Therefore, at the world level, the value of imports should be higher than that of exports. However, since 2011, this has not been the case. Work is underway to better understand the reasons for this anomalous trend.

The seven fishery commodity groups covered by this table are: 1. Fish, fresh, chilled or frozen; 2. Fish, dried, salted, or smoked; 3. Crustaceans and mollusks, fresh, dried, salted, etc.; 4. Fish products and preparations, whether or not in airtight containers; 5. Crustacean and mollusk products preparations, whether or not in airtight containers; 6. Oils and fats, crude or refined, of aquatic animal origin; and 7. Meals, solubles, and similar animal foodstuffs of aquatic animal origin.

Source:--Food and Agriculture Organization of the United Nations (FAO).

DISPOSITION OF WORLD AQUACULTURE AND COMMERCIAL CATCHES, 2011-2015

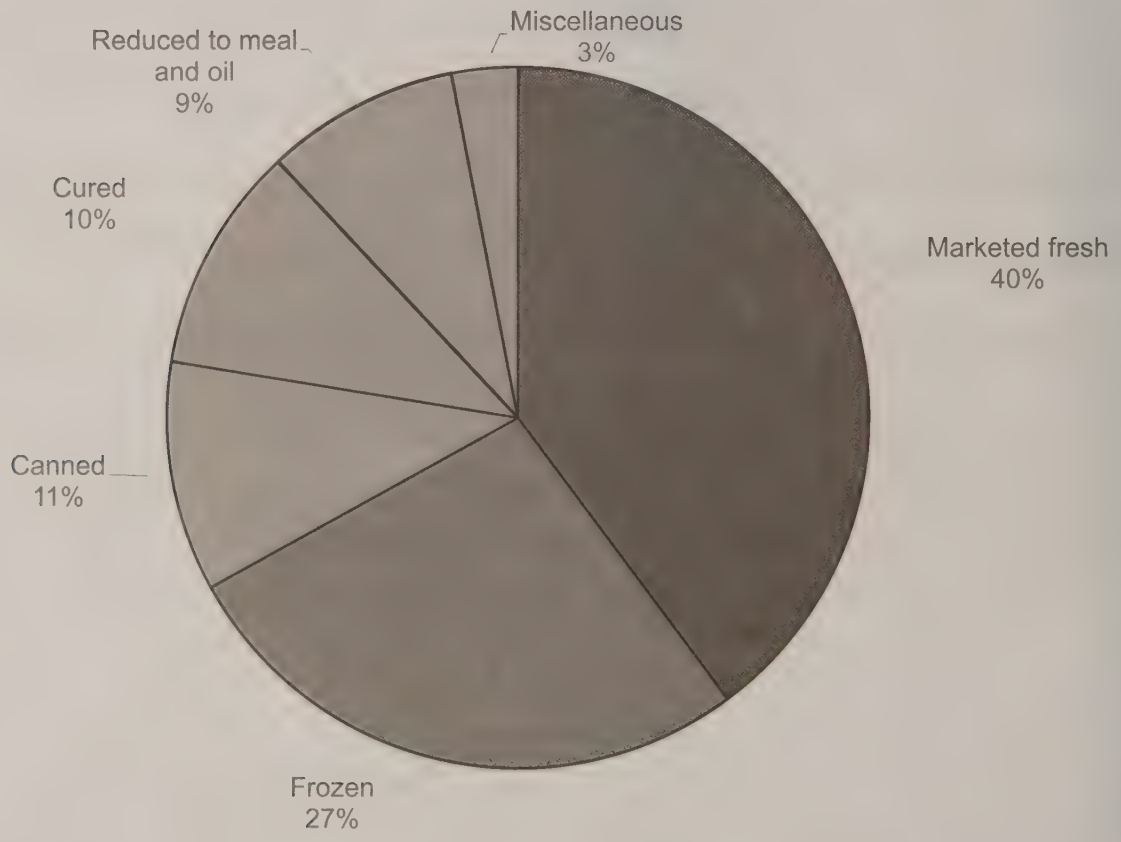
Item	2011	2012	2013	2014	2015
	Percent of Total				
Marketed fresh	38	39	39	40	40
Frozen	25	26	26	26	27
Canned	12	12	11	11	11
Cured	10	10	10	10	10
Reduced to meal and oil (1)	12	10	10	9	9
Miscellaneous purposes	3	3	3	3	3
Total	**100**	**100**	**100**	**100**	**100**

NOTE: Data for 2011-2014 are revised and are preliminary for 2015. Data for marine mammals and aquatic plants are excluded.

(1) Only whole fish destined for the manufacture of oils and meals are included. Raw material for reduction derived from fish primarily destined for marketing fresh, frozen, canned, cured, and miscellaneous purposes is excluded; such waste quantities are included under the other disposition channels.

Source: Food and Agriculture Organization of the United Nations (FAO).

Disposition of World Aquaculture and Commercial Catches, 2015



Processed Fishery Products

FRESH AND FROZEN

FISH STICKS AND PORTIONS. The combined production of fish sticks and portions was 145 million pounds valued at $246.3 million compared with the 2015 production of 219 million pounds valued at $378 million. The total production of fish sticks amounted to 54.9 million pounds valued at $83.3 million. The total production of fish portions amounted to 90.1 million pounds valued at $163 million.

FISH FILLETS AND STEAKS. In 2016, the U.S. production of raw (uncooked) fish fillets and steaks, including blocks, was 749.8 million pounds, 16.9 million pounds less than the 766.7 million pounds in 2015 due to decreases in haddock, tilapia, tuna, and salmon fillets. There were also notable decreases in sablefish, striped bass, and dolphinfish. All fillets and steaks were valued at $1.9 billion. Alaska pollock fillets and blocks continue to lead all species with 472.5 million pounds–an increase from the 461.3 million pounds in 2015, and representing 63 percent of the total. Production of groundfish fillets and steaks (cod, hake, ocean perch, pollock, cusk, and haddock) was 593 million pounds, an increase of 18 million pounds from 2015.

BREADED SHRIMP. The production of breaded shrimp in 2016 was 105.5 million pounds valued at $376.4 million. This represents a decrease in value and volume from the 2015 production of 107.9 million pounds valued at $379.7 million.

CANNED PRODUCTS

CANNED FISHERY PRODUCTS. The pack of canned fishery products in the 50 states, American Samoa, and Puerto Rico was 865.5 million pounds valued at $1.2 billion—a decrease in volume of 137.8 million pounds and $286.5 million dollars compared to 2015. The 2016 pack included 576.1 million pounds with a value of $1.0 billion for human consumption and 289.4 million pounds valued at $215.7 million for bait and animal food.

CANNED SALMON. The 2016 U.S. pack of salmon was 52.0 million pounds valued at $141.9 million, decreases in volume and value from the 2015 levels of 167.6 million pounds and $355.5 million.

CANNED TUNA. The U.S. pack of tuna was 382.9 million pounds valued at $699.4 million—a decrease of 17 million pounds in volume and $74 million in value compared with the 2015 pack. The pack of albacore tuna was 139.9 million pounds comprising 36.5 percent of the tuna pack in 2016. Lightmeat tuna (bigeye, bluefin, skipjack, and yellowfin) comprised the remainder with a pack of 243 million pounds.

CANNED CLAMS. The 2016 U.S. pack of clams (whole, minced, chowder, juice, and specialties) was 117.5 million pounds valued at $145.3 million. The pack of whole and minced clams was 36.9 million pounds. Clam chowder and clam juice was 80.6 million pounds and made up the majority of the pack.

OTHER CANNED ITEMS. The pack of pet food and bait was 289.4 million pounds valued at $216 million—unchanged from the 2015 volume and value levels.

INDUSTRIAL FISHERY PRODUCTS

INDUSTRIAL FISHERY PRODUCTS. The value of the domestic production of industrial fishery products was $561.1 million—a decrease of $138.1 million compared with the 2015 value.

FISH MEAL. The domestic production of fish and shellfish meal was 559.1 million pounds valued at $307.7 million, a decrease of 52 million pounds and $89.4 million compared with 2015. Most of this production was fish meal (559 million pounds) while shellfish meal production was 0.33 million pounds—a decrease of 682 thousand pounds from the 2015 level.

FISH OILS. The domestic production of fish oils was 177.5 million pounds (approximately 22.9 million gallons) valued at $70.8 million, an increase of 37.5 million pounds and a $26.5 million decrease in value compared with 2015 production.

OTHER INDUSTRIAL PRODUCTS. Oyster shell products, agar-agar, animal feeds, crab and clam shells processed for food serving, fish pellets, Irish moss extracts, kelp products, dry and liquid fertilizers, and mussel shell buttons were valued at $182.5 million.

METHODOLOGY:

The NMFS Annual Survey of U.S. Seafood Processors is the only comprehensive, national survey that focuses on the domestic seafood processing industry. The resulting data are reported in this section of Fisheries of the United States, as well as reports of the Food and Agriculture Organization of the United Nations (FAO), Fisheries Economics of the United States, and are used in commercial fisheries disposition calculations, annual per-capita consumption figures, and other reports.

The survey is voluntary in all regions except the Northeast. In the Northeast, it is mandatory for processors with a federal processing permit to provide the requested data.

The survey instrument is a paper form that asks for monthly employment figures, a list of product types, and the volume and value of each product processed in the previous year. Space is provided for the company to fill in new products. The survey forms are produced by the NMFS Office of Science and Technology and are mailed to five different regional contacts. Each region then proceeds slightly differently:

- Northeast – The distribution of forms to companies is overseen by a lead port agent. Other port agents assist with collecting information from the companies in their area. Dealer permits are not renewed if the processor has not provided the required data.
- Southeast and Gulf – Forms are distributed through the Southeast Fishery Science Center to the port agents along the coast who are then responsible for obtaining the data from the companies.
- Southwest and Northwest – Forms are distributed through, and returned to, the Pacific States Marine Fisheries Commission office under an agreement with NMFS.
- Pacific Islands – Forms are distributed and collected by Pacific Islands Regional Office staff.

The companies in the survey are those that have reported previously or have been found by research or word-of-mouth. Adding companies in order to have a more complete data frame is a constant goal throughout the year.

Forms are returned to the Office of Science and Technology for data entry. Follow up contact may be attempted to clarify data that is excluded or unclear. Because the survey is voluntary, we do not receive data from every company we contact. We employ various estimation and alternate data collection methods:

- Most Alaska data are obtained from the Alaska Fisheries Information Network (AKFIN).
- Data on Alaskan salmon processing come from the Alaska Department of Fish and Game.
- USDA reports provide data on rainbow trout processing and catfish data are estimated from USDA catfish production numbers.
- Data from the NOAA Seafood Inspection Program are used to estimate the data for companies that have not reported to the Survey of Fishery Processors but are included in the inspection program.
- Imputation is used to estimate the remaining missing companies.

VALUE OF PROCESSED FISHERY PRODUCTS, 2015 AND 2016

(Processed from domestic catch and imported products)

Item	2015 (1)		2016	
	Thousand dollars	Percent of total	Thousand dollars	Percent of total
Edible:				
Fresh and frozen	8,836,849	78	7,620,015	80
Canned	1,303,371	11	1,017,447	11
Cured	248,794	2	119,423	1
Total edible	**10,389,015**	**91**	**8,756,885**	**92**
Industrial:				
Bait and animal food	296,208	3	233,702	2
Meal and oil	494,463	4	378,549	4
Other	200,043	2	182,338	2
Total industrial	**990,714**	**9**	**794,589**	**8**
Grand total	**11,379,729**	**100**	**9,551,474**	**100**

Note: Value is based on selling price at the plant.
(1) Revised based on additional data.

U.S. PRODUCTION OF FISH STICKS, FISH PORTIONS, AND BREADED SHRIMP, 2007-2016

Year	Fish sticks			Fish portions			Breaded shrimp		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
2007	59,353	26,922	61,942	178,742	81,077	302,984	139,571	63,309	347,152
2008	73,926	33,533	104,974	194,005	88,000	300,137	86,131	39,069	200,147
2009	82,461	37,404	120,615	204,491	92,757	310,213	74,172	33,644	159,416
2010	79,586	36,100	125,258	140,584	63,768	291,569	97,124	44,055	251,594
2011	74,451	33,771	113,069	141,849	64,342	277,466	116,935	53,041	562,928
2012	80,034	36,303	104,829	172,051	78,042	345,686	92,460	41,940	240,976
2013	58,214	26,406	87,430	151,721	68,820	259,504	79,740	36,170	193,837
2014	58,545	26,556	87,487	146,594	66,495	255,725	109,293	49,575	311,211
2015	66,289	30,068	96,217	152,633	69,234	281,833	107,929	48,956	379,688
2016	54,896	24,901	83,276	90,129	40,882	163,057	105,513	47,860	376,409

PRODUCTION OF FRESH AND FROZEN FILLETS AND STEAKS, BY SPECIES, 2015 AND 2016

Species	2015 (1)			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Fillets:						
Amberjack	81	37	825	65	29	614
Anglerfish	453	205	2,323	281	127	1,614
Bluefish	84	38	377	53	24	229
Cobia	50	23	537	17	8	203
Cod	67,594	30,660	271,503	72,632	32,946	304,651
Cusk	19	9	56	5	2	21
Dolphinfish	4,280	1,941	23,221	2,636	1,196	16,990
Flounders	12,296	5,577	51,299	10,221	4,636	43,189
Groupers	1,092	495	13,065	768	348	9,994
Haddock	14,042	6,369	65,831	8,884	4,030	46,680
Hake	28,925	13,120	38,493	36,537	16,573	45,622
Halibut	4,836	2,194	45,279	3,526	1,599	26,868
Lingcod	96	44	503	265	120	1,468
Ocean perch:						
Atlantic	1,309	594	4,219	988	448	2,997
Pacific	786	357	2,129	795	361	2,536
Opah	238	108	1,073	162	73	487
Patagonian Toothfish	908	412	18,014	307	139	6,079
Pollock:						
Atlantic	1,346	611	4,507	893	405	3,454
Alaska	461,255	209,224	624,886	472,517	214,332	653,272
Rockfishes	2,757	1,251	8,812	2,333	1,058	7,137
Sablefish	800	363	6,248	149	68	1,698
Salmon	116,544	52,864	597,223	103,304	46,858	552,674
Sea bass	318	144	2,859	168	76	1,607
Sea trout	97	44	647	66	30	469
Shark	485	220	1,501	326	148	1,190
Snapper	836	379	9,335	1,109	503	10,944
Striped bass	355	161	3,134	84	38	927
Swordfish	2,933	1,330	26,321	1,921	871	17,369
Tilapia	11,061	5,017	37,918	7,770	3,524	24,632
Tuna	10,927	4,956	108,664	8,175	3,708	80,829
Wahoo	465	211	2,200	282	128	1,245
Wolffish	(2)	(2)	(2)	(2)	(2)	(2)
Yellowtail Jack	190	86	1,280	67	30	358
Unclassified	12,731	5,775	76,640	7,475	3,391	39,579
Total Fillet	**760,189**	**344,819**	**2,050,922**	**744,781**	**337,830**	**1,907,626**
Steaks:						
Halibut	590	268	6,546	590	268	6,530
Salmon	540	245	3,905	(2)	(2)	(2)
Swordfish	1,685	764	6,154	1,577	715	5,411
Tuna	890	404	8,207	786	357	7,502
Unclassified	2,851	1,293	5,657	2,086	946	7,345
Total Steaks	**6,556**	**2,974**	**30,469**	**5,039**	**2,286**	**26,788**
Grand total	**766,745**	**347,793**	**2,081,391**	**749,820**	**340,116**	**1,934,414**

(1) Revised based on additional data.

(2) Included in unclassified.

Note: Some fillet products were further processed into frozen blocks.

PRODUCTION OF CANNED FISHERY PRODUCTS, BY SPECIES, 2015 AND 2016

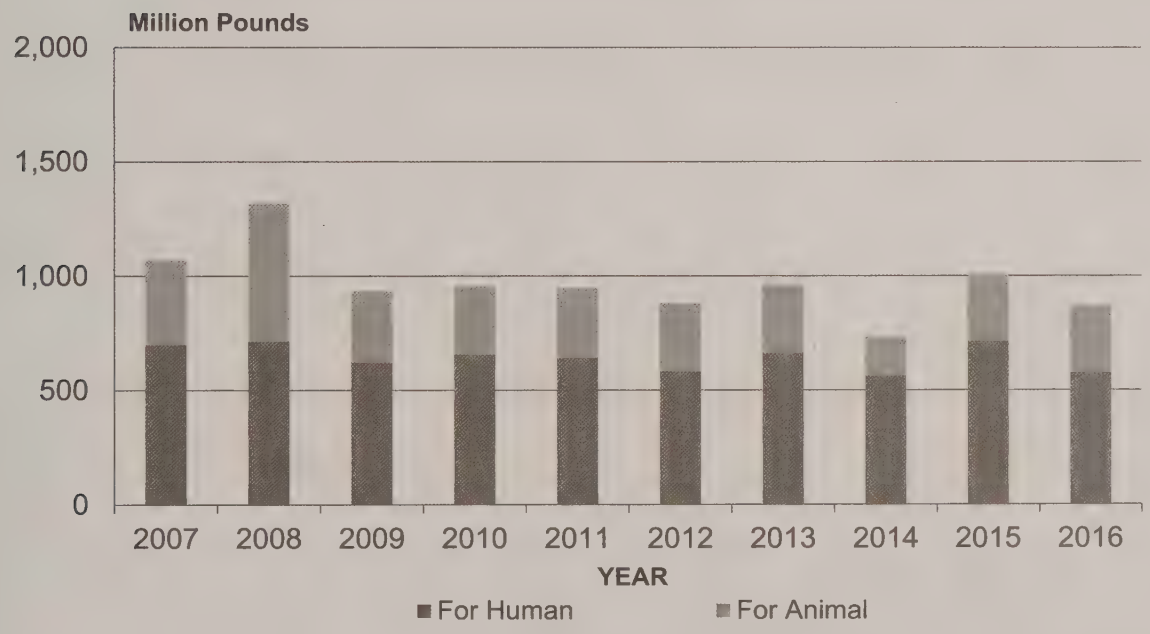
Species	Pounds per case	2015 (1)			2016		
		Standard cases	Thousand pounds	Thousand dollars	Standard cases	Thousand pounds	Thousand dollars
For human consumption:							
Fish:							
Herring	23.4	(5)	(5)	(5)	(5)	(5)	(5)
Salmon:							
Chinook	44.25	113	5	57	136	6	71
Chum	44.25	12,249	542	881	19,299	854	798
Pink	44.25	2,944,542	130,296	232,751	508,768	22,513	49,822
Coho	44.25	14,305	633	1,263	4,475	198	333
Sockeye	44.25	817,333	36,167	120,567	643,141	28,459	90,840
Total salmon		**3,788,542**	**167,643**	**355,519**	**1,175,819**	**52,030**	**141,864**
Specialties	48	13,271	637	3,911	31,625	1,518	9,872
Sardines, Maine	23.4	(5)	(5)	(5)	(5)	(5)	(5)
Tuna: (2)							
Albacore:							
Solid	18	7,297,833	131,361	339,797	6,498,833	116,979	299,269
Chunk	18	1,286,611	23,159	53,949	1,272,333	22,902	52,455
Total albacore		**8,584,444**	**154,520**	**393,746**	**7,771,167**	**139,881**	**351,724**
Lightmeat:							
Solid	18	618,944	11,141	29,718	966,889	17,404	38,288
Chunk	18	13,011,833	234,213	349,952	12,532,222	225,580	309,400
Total lightmeat		**13,630,778**	**245,354**	**379,670**	**13,499,111**	**242,984**	**347,688**
Total tuna		**22,215,222**	**399,874**	**773,416**	**21,270,278**	**382,865**	**699,412**
Specialties	48	42	2	30	83	4	54
Other	48	5,979	287	918	1,875	90	494
Total fish	–	**26,023,056**	**568,443**	**1,133,794**	**22,479,680**	**436,507**	**851,696**
Shellfish:							
Clam and clam products: (3)							
Whole and minced	15	2,627,933	39,419	84,853	2,463,800	36,957	81,151
Chowder and juice	30	2,687,400	80,622	62,551	2,685,967	80,579	64,154
Specialties	48	(5)	(5)	(5)	(5)	(5)	(5)
Total clams	–	**5,315,333**	**120,041**	**147,404**	**5,149,767**	**117,536**	**145,305**
Crab meat and specialties:	**20**	**2,205**	**43**	**166**	**9,231**	**180**	**689**
Oyster, specialties	48	(5)	(5)	(5)	(5)	(5)	(5)
Shrimp, natural (4)	6.75	(5)	(5)	(5)	(5)	(5)	(5)
Other	48	528,854	25,385	22,007	456,146	21,895	19,757
Total shellfish	–	**5,846,393**	**145,469**	**169,577**	**5,615,143**	**139,611**	**165,751**
Total for human consumption	–	**31,869,449**	**713,912**	**1,303,371**	**28,094,824**	**576,118**	**1,017,447**
For bait and animal food	**48**	**6,029,458**	**289,414**	**216,256**	**6,029,125**	**289,398**	**215,720**
Grand total	–	**37,898,907**	**1,003,326**	**1,519,627**	**34,123,949**	**865,516**	**1,233,167**

(1) Revised based on additional data.
(2) Flakes included with chunk.
(3) "Cut out" or "drained" weight of can contents are given for whole or minced clams and net contents for other clam products.
(4) Drained weight.
(5) Confidential included with "Other".

PRODUCTION OF CANNED FISHERY PRODUCTS, 2007-2016

Year	For human consumption			For animal food and bait			Total		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
2007	698,831	316,988	1,090,070	371,032	168,299	233,614	1,069,863	485,287	1,323,684
2008	713,946	323,844	1,191,214	601,678	272,919	231,273	1,315,624	596,763	1,422,487
2009	621,256	281,800	1,190,067	312,887	141,925	217,699	934,143	423,724	1,407,766
2010	656,420	297,750	1,196,346	299,300	135,762	217,583	955,720	433,512	1,413,929
2011	640,917	290,588	1,251,332	305,906	138,209	224,953	946,823	429,476	1,476,285
2012	581,908	263,952	1,373,011	298,667	135,474	241,663	880,575	399,426	1,614,674
2013	662,435	300,478	1,533,585	301,659	135,477	246,336	964,094	437,310	1,779,921
2014	561,750	254,808	1,226,636	171,104	77,612	149,822	732,854	332,420	1,376,458
2015	713,912	323,828	1,303,371	289,414	131,277	216,256	1,003,326	455,106	1,519,627
2016	576,118	261,325	1,017,447	289,398	131,270	215,720	865,516	392,595	1,233,167

Production of Canned Fishery Products, 2007-2016



PRODUCTION OF MEAL AND OIL, 2015 AND 2016

Product	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Dried scrap and meal:						
Fish	610,073	276,727	396,215	558,805	253,472	307,472
Shellfish	1,009	458	878	327	148	239
Total, scrap and meal	**611,082**	**277,185**	**397,093**	**559,132**	**253,621**	**307,711**
Body oil, total	**139,951**	**63,481**	**97,370**	**177,459**	**80,495**	**70,838**

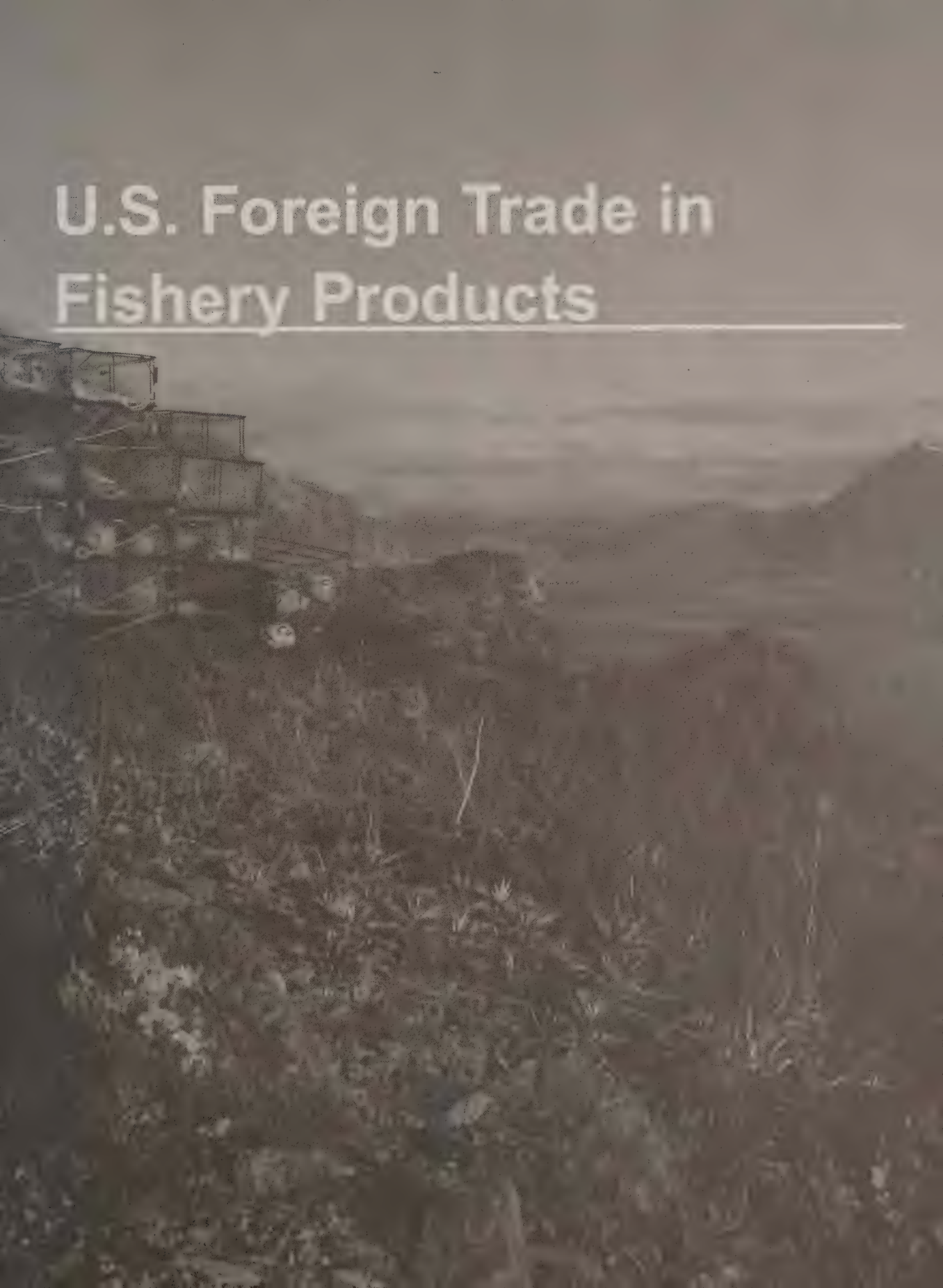
Note: To convert pounds of oil to gallons divide by 7.75.
The above data include products in American Samoa and Puerto Rico.

PRODUCTION OF INDUSTRIAL PRODUCTS, 2007-2016

Year	Scrap and Meal		Marine Animal Oil		Meal and Oil	Other Industrial Products	Grand Total
	Thousand pounds	Metric tons	Thousand pounds	Metric tons	-------Thousand dollars -------		
2007	563,221	255,475	152,205	69,040	277,874	62,025	339,899
2008	492,828	223,545	190,023	86,194	245,240	64,631	309,871
2009	472,805	214,463	168,157	76,276	227,438	61,657	289,095
2010	487,692	221,216	136,362	61,853	218,937	64,040	282,977
2011	620,823	281,603	143,171	64,942	301,462	133,640	435,102
2012	585,565	265,611	115,090	52,204	335,188	162,341	497,529
2013	508,057	230,453	175,877	79,777	298,709	180,073	478,780
2014	515,000	233,602	139,005	63,052	384,700	206,251	590,951
2015	611,082	277,185	139,951	63,481	494,463	204,750	699,213
2016	559,132	253,621	177,459	80,495	378,549	182,538	561,087

Note: Does not include the value of imported items that may be further processed.

U.S. Foreign Trade in Fishery Products



The data used in this section are from the U.S. Census Bureau Merchandise Trade Statistics for 2016 as revised on June 2, 2017, (FT900: U.S. International Trade in Goods and Services). Data for imports and exports are primarily compiled from records filed with U.S. Customs and Border Protection. Data for U.S. exports to Canada are based on import documents filed with Canadian agencies and forwarded to the U.S. Census Bureau. Estimates are made for low-value imports or exports by trading partner and are based on bilateral trade patterns. See http://www.census.gov/foreign-trade/index.html for more information.

IMPORTS

U.S. imports of edible fishery products in 2016 were 5.8 billion pounds, valued at $19.5 billion. An increase of 90.3 million pounds (1.6%) and $693.0 million (3.7%) from 2015.

Edible imports consisted of 4.9 billion pounds of fresh and frozen products valued at $17.3 billion, 688.8 million pounds of canned products valued at $1.6 billion, 101.2 million pounds of cured products valued at $314.2 million, 7.1 million pounds of caviar and roe products valued at $49.4 million, and 89.9 million pounds of other products valued at $221.3 million.

The quantity of shrimp imported in 2016 was 1.3 billion pounds, 40.5 million pounds more than the quantity imported in 2015. Valued at $5.7 billion, shrimp imports accounted for 29.3 percent of the value of total edible imports. Imports of fresh and frozen salmon, including fillets, were 733.9 million pounds valued at $3.0 billion in 2016. Imports of fresh and frozen tuna, including steaks, were 375.5 million pounds, 29.3 million pounds less than the 404.8 million pounds imported in 2015. Imports of canned tuna were 292.3 million pounds, a 21.0 million pounds decrease over 2015. Imports of fresh and frozen fillets and steaks amounted to 1.6 billion pounds, increasing 9.6 million pounds from 2015. Fish meat imports were 51.2 million pounds valued at $187.1. Regular block imports were 80.7 million pounds, a decrease of 13.6 million pounds from 2015.

Imports of nonedible fishery products were valued at $16.4 billion, an increase of $838.1 million compared with 2015. The total value of edible and nonedible fishery imports was $35.8 billion in 2016, $1.53 billion more than in 2015.

EXPORTS

U.S. exports of edible fishery products were 2.9 billion pounds valued at $5.4 billion, a decrease of 214.5 million pounds (6.8%) from 2015. Value decreased $186.1 million (3.3%). Fresh and frozen exports were 2.7 billion pounds valued at $4.7 billion, a decrease of 153.2 million pounds (5.3%) and a decrease of $35.2 million (0.7%) compared with 2015. In terms of individual items, fresh and frozen exports consisted principally of 356.7 million pounds of salmon valued at $732.2 million, 420.9 million pounds of surimi valued at $448.6 million, and 122.7 million pounds of lobsters valued at $753.0 million.

Canned items were 109.4 million pounds valued at $251.0 million. Salmon was the major canned item exported, with 82.1 million pounds valued at $178.0 million. Cured items were 7.8 million pounds valued at $19.3 million. Caviar and roe exports were 68.3 million pounds valued at $312.4 million.

Exports of nonedible products were valued at $22.6 billion, a decrease of $233.7 million when compared with 2015 (1.0%). Exports of fish meal amounted to 339.9 million pounds valued at $223.1 million. The total value of edible and nonedible exports was $28.0 billion, a decrease of $409.8 (1.4%) compared with 2015.

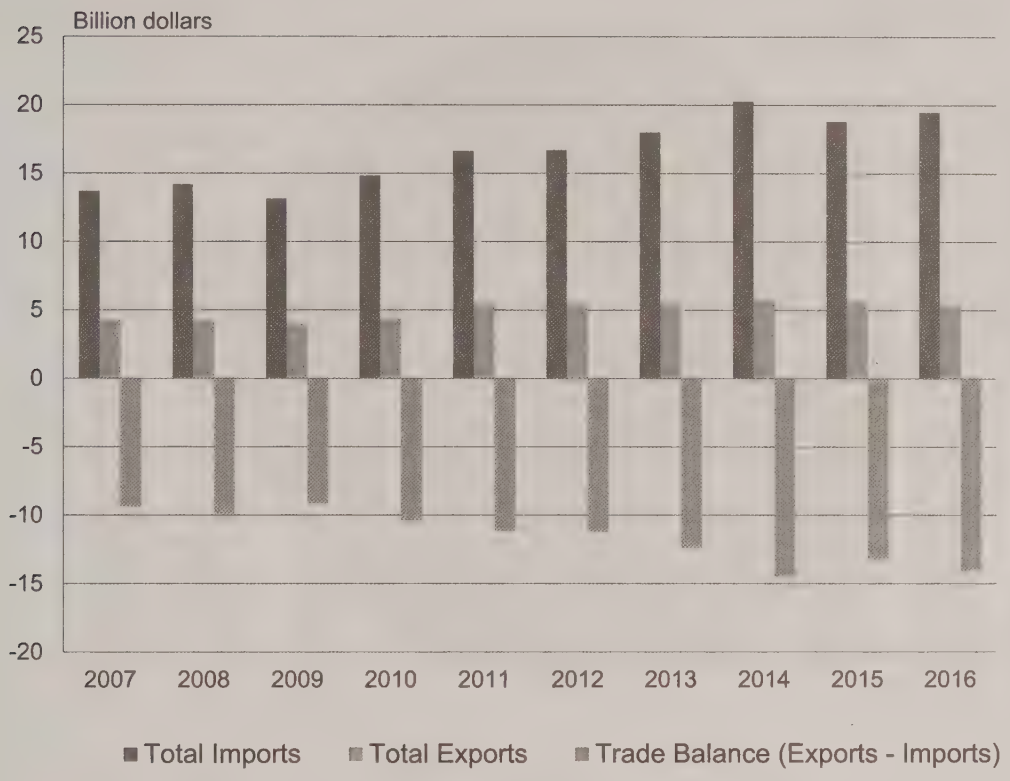
DATA NOTES

The weights reported in this section are of individual products as imported or exported, i.e., fillets, steaks, whole, headed, etc. The reported import value is value of the product as appraised by the U.S. Customs Service. This value may be based on foreign market value, constructed value, American selling price, etc. It generally represents a value in a foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise to the United States.

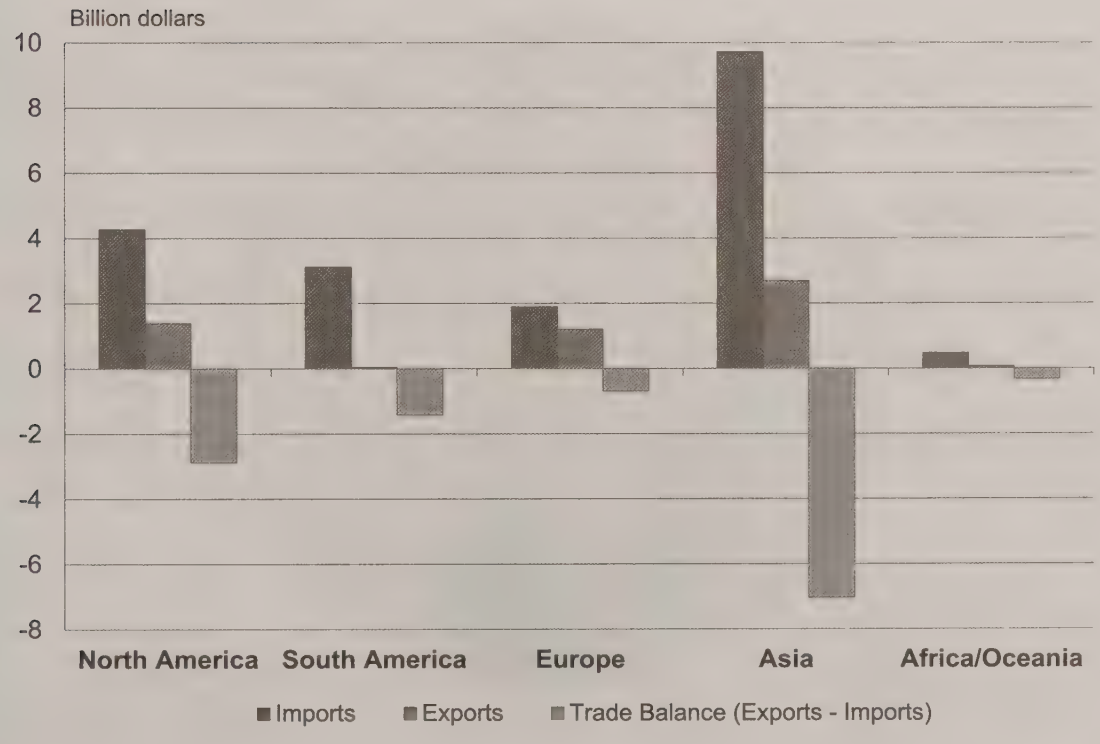
The export value is generally equivalent to the free alongside ship (f.a.s.) value at the U.S. port of export based on the transaction price, including inland freight, insurance, and other charges incurred in placing the merchandise alongside the carrier at the U.S. port of exportation. The value excludes the cost of loading, freight, insurance, and other charges or transportation costs beyond the port of exportation.

Re-exports are commodities that have entered the country as imports and are subsequently exported in substantially the same condition as when originally imported. These are also referred to as foreign exports.

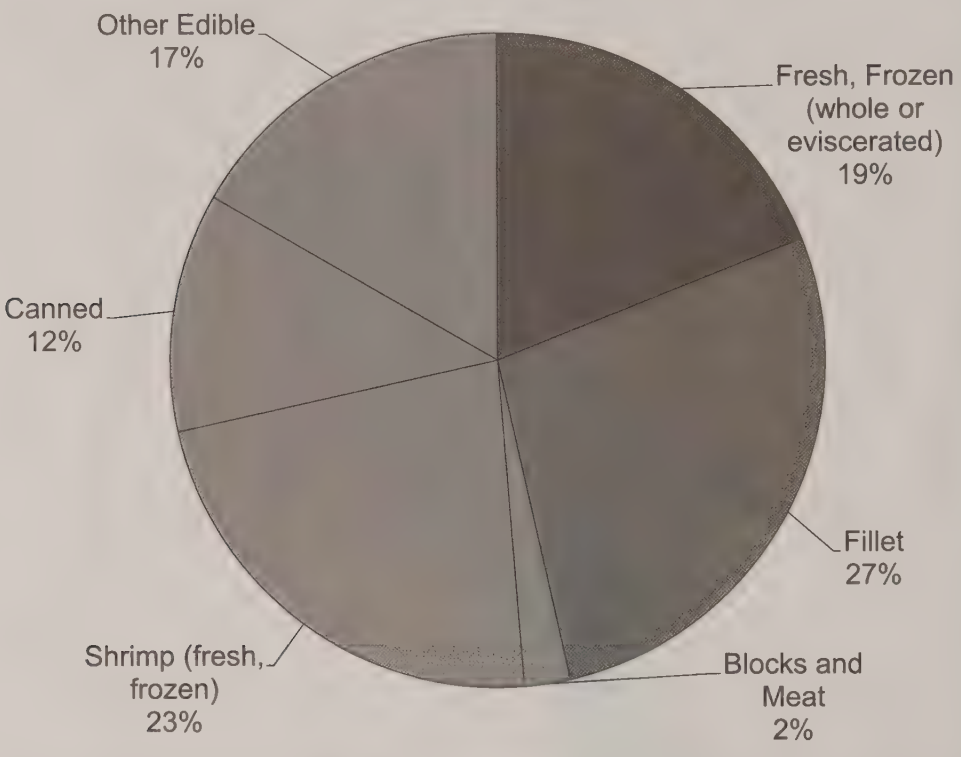
U.S. Trade Balance in Edible Fishery Products, 2007-2016



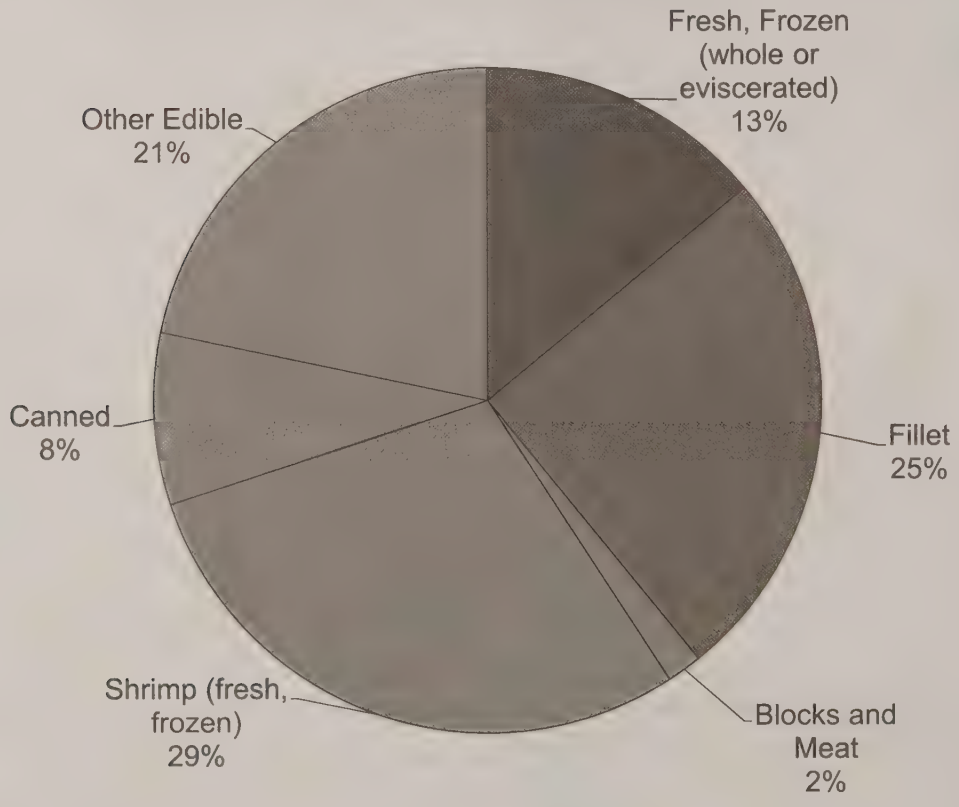
U.S. Trade in Edible Fishery Products, 2016



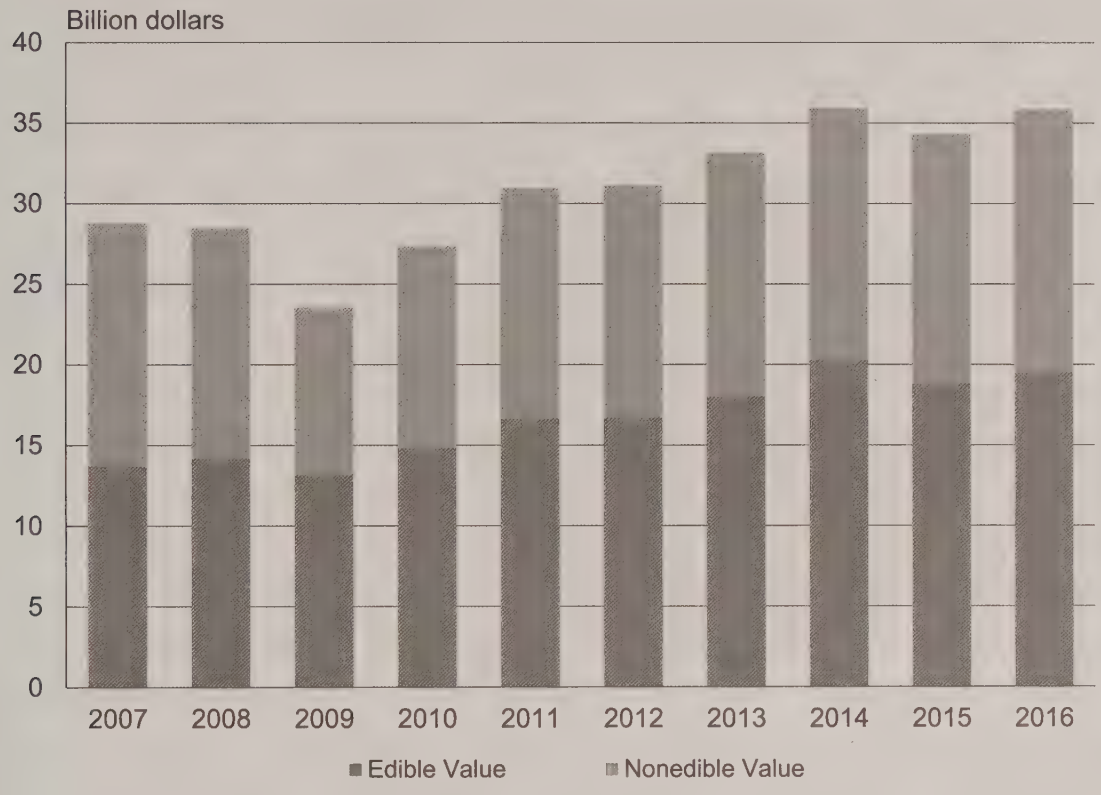
U.S. Imports of Edible Products, Product Type by Volume, 2016



U.S. Imports of Edible Products, Product Type by Value, 2016



U.S. Fishery Products Imports, 2007-2016

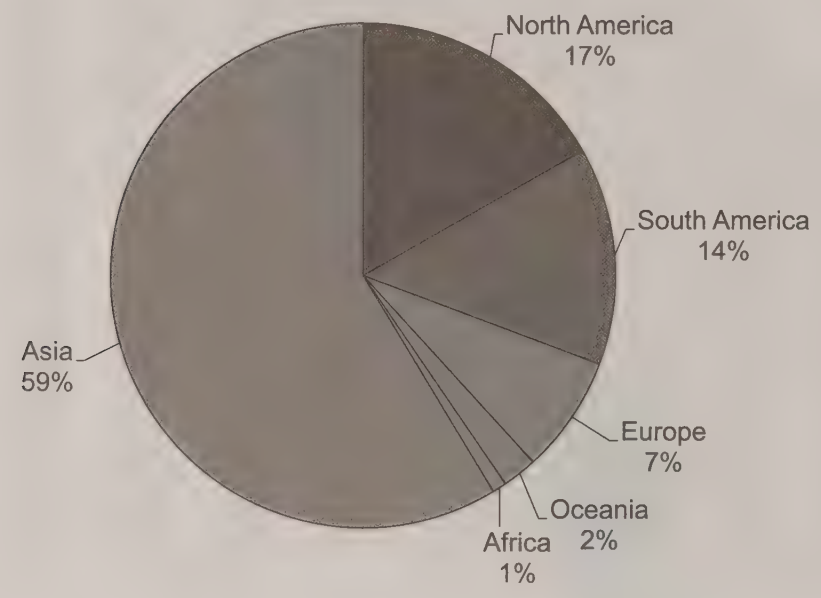


EDIBLE AND NONEDIBLE FISHERY PRODUCTS IMPORTS, 2007-2016

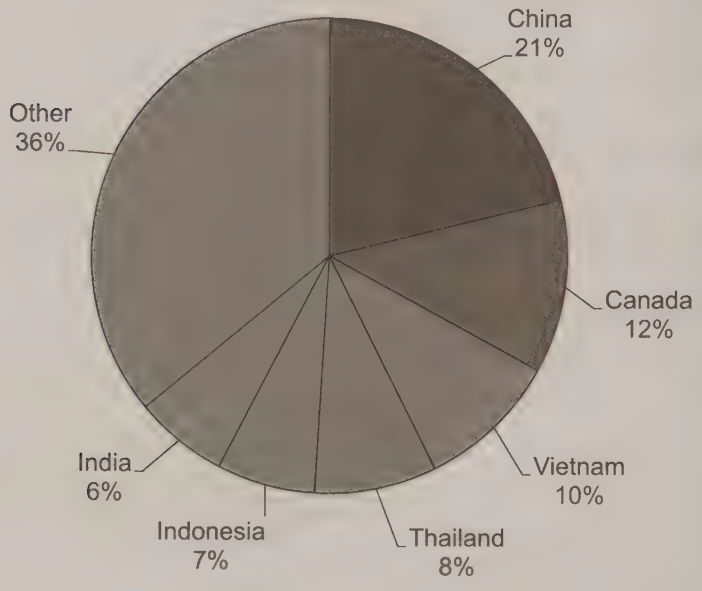
Year	Edible			Nonedible	Total
	Thousand pounds	Metric tons	Thousand dollars		
2007	5,346,345	2,425,086	13,696,207	15,080,912	28,777,119
2008	5,225,960	2,370,480	14,170,848	14,285,768	28,456,616
2009	5,161,513	2,341,247	13,124,170	10,430,117	23,554,288
2010	5,447,135	2,470,804	14,810,857	12,541,650	27,352,507
2011	5,349,471	2,426,504	16,617,625	14,325,656	30,943,281
2012	5,383,538	2,441,957	16,689,567	14,417,370	31,106,937
2013	5,415,289	2,456,359	18,006,248	15,149,527	33,155,775
2014	5,566,746	2,525,059	20,264,457	15,650,387	35,914,844
2015	5,737,895	2,602,692	18,798,004	15,513,078	34,311,081
2016	**5,828,202**	**2,643,655**	**19,491,036**	**16,351,245**	**35,842,282**

Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Imports of Edible Fishery Products from Major Areas, 2016, by Volume



U.S. Imports of Edible Fishery Products from Major Exporters, 2016, by Volume



FISHERY PRODUCTS IMPORTS, BY PRINCIPAL ITEMS, 2015 AND 2016

Item	2015			2016		
Edible fishery products:	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Fresh and frozen:						
Whole or eviscerated:						
Freshwater	131,207	59,515	174,083	131,207	59,515	174,083
Flatfish	24,283	11,015	114,105	26,736	12,127	128,724
Groundfish	46,937	21,290	68,893	49,319	22,371	69,388
Salmon	265,630	120,489	750,109	283,985	128,815	971,272
Tuna (1)	343,192	155,671	694,844	304,452	138,098	652,381
Other	270,977	122,914	681,777	310,505	140,844	734,502
Fillets and steaks:						
Freshwater	687,056	311,647	1,403,598	674,873	306,121	1,246,794
Flatfish	45,671	20,716	130,147	44,548	20,207	124,928
Groundfish	222,434	100,896	567,304	241,605	109,591	602,071
Salmon	447,155	202,828	1,732,553	449,959	204,100	2,022,362
Other	190,941	86,610	887,019	191,897	87,044	907,780
Meat whether or not minced:	38,961	17,673	146,165	51,223	23,234	187,087
Blocks and slabs	94,337	42,791	169,811	80,739	36,623	144,291
Surimi	2,198	997	2,255	2,179	988	2,137
Crabs	161,120	73,083	873,279	160,525	72,814	1,023,568
Crabmeat	11,356	5,151	67,800	14,166	6,426	83,631
Lobster:						
American	106,495	48,306	928,356	95,853	43,479	837,383
Spiny	19,196	8,707	232,626	17,113	7,763	185,616
Shrimp	1,282,458	581,719	5,397,508	1,327,427	602,117	5,673,609
Scallops (meats)	47,879	21,718	344,912	49,428	22,420	322,811
Squid	142,620	64,692	214,458	144,497	65,544	269,013
Other fish and shellfish	264,892	120,154	822,422	289,047	131,111	915,799
Total, fresh and frozen	**4,846,996**	**2,198,583**	**16,404,025**	**4,941,283**	**2,241,351**	**17,279,230**
Canned:						
Anchovy	6,933	3,145	34,034	5,647	2,561	28,896
Herring	8,187	3,714	14,173	6,998	3,174	12,350
Mackerel	26,876	12,191	33,347	26,241	11,903	32,747
Salmon	19,771	8,968	63,079	18,916	8,580	58,883
Sardines	63,570	28,835	122,669	70,475	31,967	117,898
Tuna	313,373	142,145	576,971	292,326	132,598	524,361
Clams	20,184	9,155	22,691	19,504	8,847	20,653
Crabmeat	65,369	29,651	597,802	62,331	28,273	482,008
Lobsters	481	218	2,028	835	379	4,006
Oysters	11,393	5,168	31,809	11,617	5,269	32,729
Shrimp	7,304	3,313	37,920	3,143	1,426	23,404
Balls, cakes, and puddings	43,503	19,733	74,604	46,102	20,912	81,800
Other fish and shellfish	111,115	50,402	200,088	124,640	56,536	207,170
Total, canned	**698,059**	**316,637**	**1,811,216**	**688,775**	**312,426**	**1,626,906**
Cured:						
Dried	14,538	6,594	50,581	13,040	5,915	50,269
Pickled or salted	56,551	25,651	97,041	58,282	26,436	91,248
Smoked or kippered	28,633	12,988	168,531	29,875	13,551	172,640
Total, cured	**99,722**	**45,233**	**316,152**	**101,196**	**45,902**	**314,157**
Caviar and roe	6,591	2,989	44,392	7,061	3,203	49,448
Edible seaweed and algae	23,578	10,695	72,678	18,871	8,560	55,883
Prepared meals	8,382	3,802	23,286	10,324	4,683	26,591
Other fish and shellfish	54,566	24,751	126,253	60,692	27,530	138,821
Total edible products	**5,737,894**	**2,602,692**	**18,798,004**	**5,828,202**	**2,643,655**	**19,491,036**
Nonedible products:						
Meal and scrap	110,234	50,002	91,738	120,517	54,666	103,115
Fish oils	44,781	20,312	128,432	46,749	21,205	114,702
Other	-	-	15,292,908	-	-	16,133,429
Total nonedible products	**-**	**-**	**15,513,078**	**-**	**-**	**16,351,245**
Grand total	**-**	**-**	**34,311,081**	**-**	**-**	**35,842,282**

(1) Includes loins and discs.

Note: Data include imports into the United States and Puerto Rico and landings of tuna by foreign vessels at American Samoa. Statistics on imports are the weight of individual products as exported; i.e., fillets, steaks, headed, etc. Imports and Exports of Fishery Products, Annual Summary, 2015, Current Fishery Statistics No. 2015-2 provides additional information.

Source: U.S. Department of Commerce, U.S. Census Bureau.

EDIBLE AND NONEDIBLE FISHERY PRODUCTS IMPORTS, 2016

Continent and Country	Edible			Nonedible	Total
	Thousand pounds	Metric Tons	Thousand dollars		
North America:					
Canada	687,066	311,651	3,193,099	1,188,609	4,381,708
Mexico	154,948	70,284	555,754	416,465	972,219
Dominican Republic	527	239	5,984	198,060	204,044
Honduras	33,294	15,102	129,818	57	129,875
Panama	24,310	11,027	89,288	8,215	97,503
Other	75,885	34,421	294,820	31,003	325,823
Total	**976,029**	**442,724**	**4,268,763**	**1,842,409**	**6,111,172**
South America:					
Chile	350,990	159,208	1,551,058	110,469	1,661,527
Ecuador	243,461	110,433	795,476	10,896	806,372
Peru	59,008	26,766	206,682	77,712	284,394
Argentina	56,189	25,487	197,480	56,835	254,315
Brazil	28,638	12,990	103,471	141,270	244,741
Other	74,562	33,821	253,346	126,532	379,878
Total	**812,847**	**368,705**	**3,107,513**	**523,714**	**3,631,228**
Europe:					
European Union:					
France	4,312	1,956	19,093	1,894,650	1,913,743
Italy	2,429	1,102	10,636	1,095,737	1,106,373
United Kingdom	27,333	12,398	111,052	487,988	599,040
Germany	14,998	6,803	77,242	492,688	569,930
Spain	32,670	14,819	109,383	302,107	411,490
Other	58,036	26,325	203,835	437,742	641,577
Total	**139,778**	**63,403**	**531,241**	**4,710,912**	**5,242,152**
Other:					
Norway	145,067	65,802	584,339	110,934	695,273
Russian Federation	59,105	26,810	410,691	2,741	413,432
Switzerland	40	18	194	409,526	409,720
Turkey	6,691	3,035	26,489	247,245	273,734
Iceland	50,734	23,013	190,982	15,855	206,837
Other	36,662	16,630	146,227	12,185	158,412
Total	**298,300**	**135,308**	**1,358,922**	**798,486**	**2,157,409**
Asia:					
China	1,235,187	560,277	2,533,041	2,328,670	4,861,711
India	371,036	168,301	1,581,797	1,886,798	3,468,595
Thailand	485,257	220,111	1,386,861	1,471,610	2,858,471
Indonesia	389,698	176,766	1,645,641	283,152	1,928,793
Vietnam	563,070	255,407	1,412,557	87,726	1,500,283
Other	374,784	170,001	1,171,165	2,148,016	3,319,181
Total	**3,419,033**	**1,550,863**	**9,731,062**	**8,205,972**	**17,937,034**
Oceania:					
New Zealand	48,966	22,211	134,495	25,716	160,211
Australia	6,568	2,979	52,414	71,298	123,712
Fiji	35,223	15,977	84,026	1,029	85,055
French Polynesia	2,163	981	7,802	31,925	39,727
Vanuatu	12,921	5,861	14,198	28	14,226
Other	23,779	10,786	34,119	1,969	36,088
Total	**129,619**	**58,795**	**327,054**	**131,965**	**459,018**
Africa:					
South Africa	3,688	1,673	32,942	111,354	144,296
Morocco	22,546	10,227	47,256	7,756	55,012
Mauritius	17,105	7,759	41,844	1,223	43,067
St. Helena	1,290	585	14,341		14,341
Reunion	758	344	9,537		9,537
Other	7,208	3,269	20,562	17,454	38,016
Total	**52,596**	**23,857**	**166,482**	**137,787**	**304,269**
Grand total	**5,828,200**	**2,643,654**	**19,491,036**	**16,351,245**	**35,842,282**

Source: U.S. Department of Commerce, U.S. Census Bureau.

REGULAR FISH BLOCKS AND MEAT IMPORTS, BY SPECIES AND TYPE, 2015 AND 2016

Species and Type	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Regular blocks and slabs:						
Freshwater	1,646	746	4,830	2,033	922	3,759
Flatfish	6,090	2,762	10,064	4,672	2,119	7,695
Groundfish						
Cod	14,759	6,695	23,632	9,038	4,100	16,030
Ocean Perch	816	370	1,596	888	403	1,501
Pollock	42,154	19,121	49,468	33,701	15,287	36,835
Whiting	6,166	2,797	9,681	8,512	3,861	13,017
Other groundfish	1,609	730	2,797	1,516	688	2,919
Total groundfish	70,643	32,043	98,834	57,848	26,239	78,329
Other regular blocks	15,958	7,238	56,083	16,186	7,342	54,509
Total Regular Blocks	**94,337**	**42,791**	**169,811**	**80,739**	**36,623**	**144,291**
Meat whether or not minced:						
Freshwater	4,560	2,069	15,668	4,320	1,959	14,854
Flatfish	571	259	1,561	443	201	1,285
Groundfish	7,564	3,431	25,217	14,101	6,396	50,546
Other	26,265	11,914	103,719	32,359	14,678	120,402
Total Meat	**38,961**	**17,673**	**146,165**	**51,223**	**23,234**	**187,087**
Total Blocks and Meat	**133,298**	**60,463**	**315,976**	**131,962**	**59,858**	**331,378**

Source: U.S. Department of Commerce, U.S. Census Bureau.

REGULAR FISH BLOCKS AND MEAT IMPORTS, BY COUNTRY OF ORIGIN, 2015 AND 2016

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
China	72,412	32,846	102,857	62,328	28,272	85,961
Norway	4,513	2,047	18,018	8,333	3,780	34,403
Chile	7,350	3,334	30,124	5,902	2,677	33,040
Argentina	6,049	2,744	24,697	8,080	3,665	26,082
Iceland	6,936	3,146	21,021	5,783	2,623	23,004
Canada	7,747	3,514	20,812	10,207	4,630	19,771
Indonesia	5,132	2,328	11,059	8,527	3,868	13,741
Australia	1,071	486	11,613	1,056	479	13,487
Falkand Islands	280	127	3,339	670	304	9,264
Other	21,807	9,892	72,436	21,075	9,560	72,625
Total	**133,298**	**60,464**	**315,976**	**131,962**	**59,858**	**331,378**

Source: U.S. Department of Commerce, U.S. Census Bureau.

GROUNDFISH FILLET AND STEAK IMPORTS, BY SPECIES, 2015 AND 2016 (1)

Species	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Cod	114,042	51,729	348,965	123,478	56,009	380,666
Cusk	-	-	-	-	-	-
Haddock	28,313	12,843	102,813	36,003	16,331	105,366
Hake	2,964	1,345	5,158	3,476	1,577	5,447
Ocean perch	3,993	1,811	8,388	5,420	2,458	10,977
Pollock	55,521	25,184	71,377	35,209	15,971	42,079
Other	17,602	7,984	30,604	38,020	17,246	57,536
Total	**222,434**	**100,896**	**567,304**	**241,605**	**109,591**	**602,071**

(1) Does not include data on fish block and slabs

Source: U.S. Department of Commerce, U.S. Census Bureau.

CANNED TUNA NOT IN OIL, QUOTA AND IMPORTS, 2007-2016

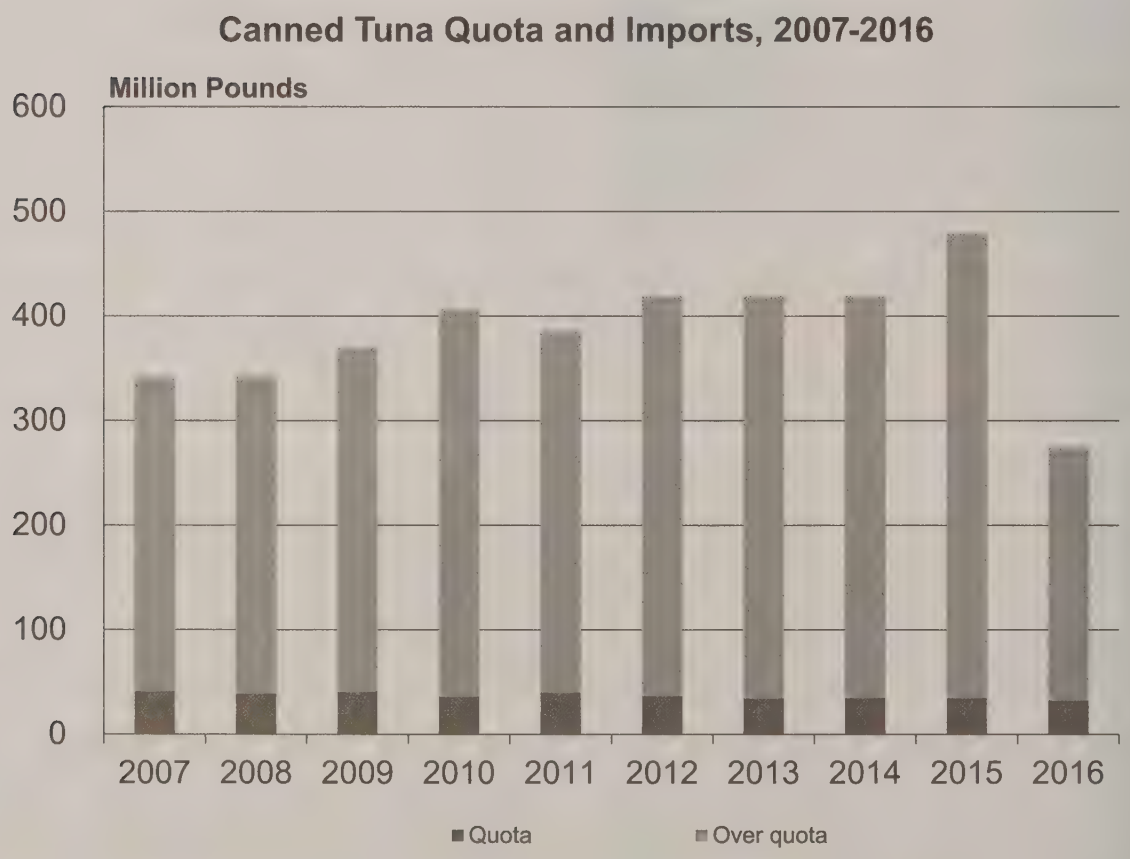
Year	Quota (1)		Over Quota (2)		Total	
	Thousand pounds	Metric tons	Thousand pounds	Metric tons	Thousand pounds	Metric tons
2007	41,178	18,678	300,412	136,266	341,590	154,944
2008	38,951	17,668	303,915	137,855	342,866	155,523
2009	40,690	18,457	329,200	149,324	369,890	167,781
2010	36,043	16,349	370,796	168,192	406,839	184,541
2011	40,011	18,149	345,514	156,724	385,525	174,873
2012	36,667	16,632	382,771	173,624	419,438	190,256
2013	34,334	15,574	385,104	174,682	419,438	190,256
2014	34,905	15,833	384,533	174,423	419,438	190,256
2015	34,771	15,772	444,344	201,553	479,115	217,325
2016	26,852	12,180	460,270	208,777	487,122	220,957

(1) Imports have been subject to tariff rate quotas since April 14, 1956. Dutiable in 1956 to 1967 at 12.5 percent ad valorem; 1968, 11 percent; 1969, 10 percent; 1970, 8.5 percent; 1971, 7 percent; and 1972 to present, 6 percent.

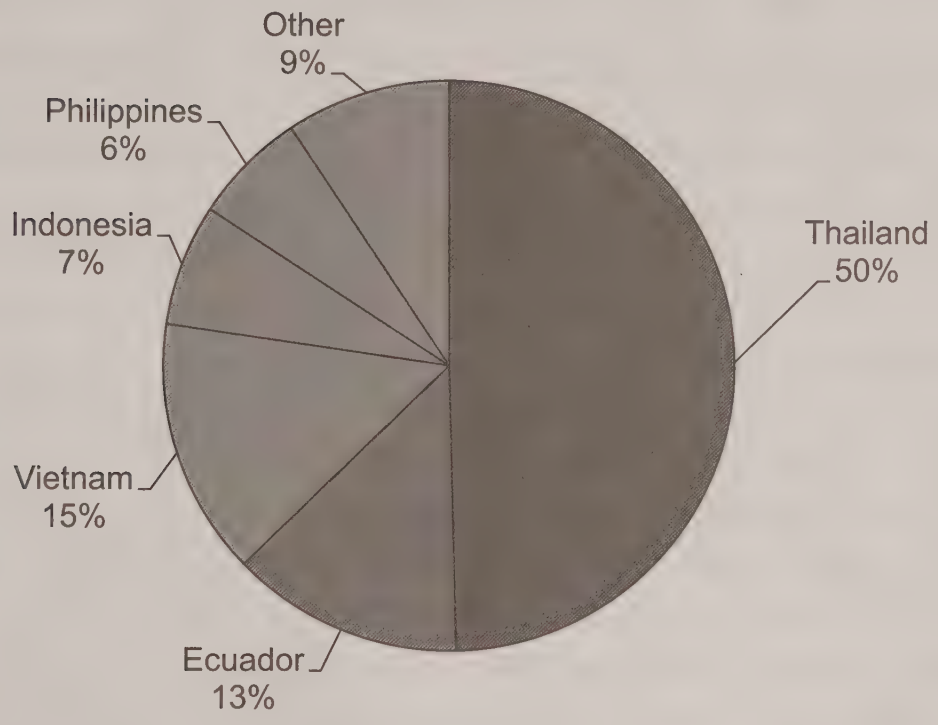
(2) Dutiable in 1972 to present, 12.5 percent.

Source: U.S. Department of Homeland Security, U.S. Customs and Border Protection.

Note: Because data in this table are from a different source, this table will not agree with tuna import data released by the U.S. Department of Commerce, U.S. Census Bureau, used elsewhere in this report.



Imports of Canned Tuna by Major Exporter, 2016 by Volume



CANNED TUNA, BY COUNTRY OF ORIGIN, 2015 AND 2016

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Thailand	154,565	70,110	267,535	145,030	65,785	247,545
Ecuador	40,289	18,275	101,513	38,431	17,432	90,978
Vietnam	41,735	18,931	80,148	42,580	19,314	73,472
Indonesia	19,035	8,634	33,173	20,152	9,141	35,353
Philippines	34,599	15,694	51,929	18,825	8,539	30,262
Mexico	11,085	5,028	17,477	13,051	5,920	20,029
China	6,453	2,927	9,918	6,850	3,107	11,604
Costa Rica	1,221	554	4,731	2,787	1,264	4,741
South Korea	1,082	491	2,784	1,239	562	3,135
Other	3,309	1,501	7,763	3,382	1,534	7,242
Total	**313,373**	**142,145**	**576,971**	**292,326**	**132,598**	**524,361**

Source: U.S. Department of Commerce, U.S. Census Bureau.

SHRIMP IMPORTS, BY COUNTRY OF ORIGIN, 2015 AND 2016

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
North America:						
Mexico	61,718	27,995	320,381	55,834	25,326	294,805
Panama	7,053	3,199	33,246	6,759	3,066	32,889
Canada	8,964	4,066	30,494	8,646	3,922	31,220
Guatemala	8,702	3,947	35,413	6,336	2,874	27,729
Honduras	10,487	4,757	32,333	8,040	3,647	26,718
Nicaragua	5,095	2,311	15,323	5,505	2,497	16,421
Belize	1,054	478	5,888	467	212	2,567
Costa Rica	284	129	1,336	157	71	843
El Salvador	108	49	438	55	25	349
Greenland	4	2	50	-	2	54
Other	-	-	4	7	1	5
Total	**103,468**	**46,933**	**474,906**	**91,806**	**41,643**	**433,600**
South America:						
Ecuador	188,740	85,612	634,083	161,218	73,128	584,065
Peru	22,650	10,274	83,707	20,968	9,511	82,978
Argentina	11,180	5,071	43,847	17,046	7,732	69,522
Guyana	16,027	7,270	45,432	18,505	8,394	51,575
Venezuela	5,110	2,318	12,582	6,400	2,903	16,591
Suriname	816	370	2,517	1,045	474	3,063
Chile	90	41	484	265	120	1,547
Colombia	370	168	1,954	97	44	604
Brazil	2	1	2	18	8	238
Total	**244,986**	**111,125**	**824,608**	**225,561**	**102,314**	**810,183**
Europe:						
European Union:						
Denmark	53	24	277	183	83	872
Spain	146	66	1,191	152	69	839
Portugal	49	22	480	57	26	443
Cyprus	42	19	136	42	19	133
Italy	-	-	-	-	-	6
Other	9	4	46	-	-	10
Total	**298**	**135**	**2,130**	**434**	**197**	**2,303**
Other Europe:	-	-	-	37	17	128
Total	**298**	**135**	**2,130**	**472**	**214**	**2,431**
Asia:						
India	298,029	135,185	1,279,537	339,411	153,956	1,497,545
Indonesia	252,235	114,413	1,100,192	258,176	117,108	1,107,875
Thailand	161,286	73,159	748,674	178,908	81,152	819,153
Vietnam	132,499	60,101	655,133	139,765	63,397	683,595
China	62,970	28,563	189,226	76,683	34,783	232,956
Bangladesh	4,687	2,126	35,423	9,043	4,102	61,455
Philippines	5,002	2,269	15,852	4,758	2,158	16,597
Pakistan	1,905	864	10,598	575	261	8,010
Saudi Arabia	783	355	2,208	2,271	1,030	7,453
Burma	983	446	8,045	384	174	2,742
Other	20,117	9,571	90,881	2,582	1,171	10,665
Total	**940,496**	**426,606**	**4,127,724**	**1,012,172**	**459,118**	**4,445,304**
Oceania	**42**	**19**	**323**	**157**	**71**	**1,103**
Africa	**474**	**215**	**5,737**	**401**	**182**	**4,393**
Grand Total	**1,290,061**	**585,033**	**5,435,428**	**1,330,570**	**603,543**	**5,697,013**

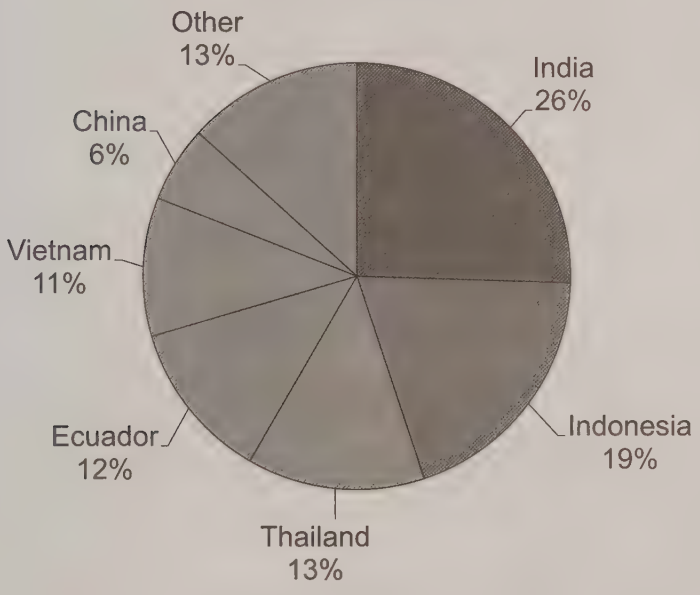
Note: Statistics on imports are the weights of the individual products as received; i.e., raw, headless, peeled, etc.
Source: U.S. Department of Commerce, U.S. Census Bureau.

SHRIMP IMPORTS, BY TYPE OF PRODUCT, 2015 AND 2016

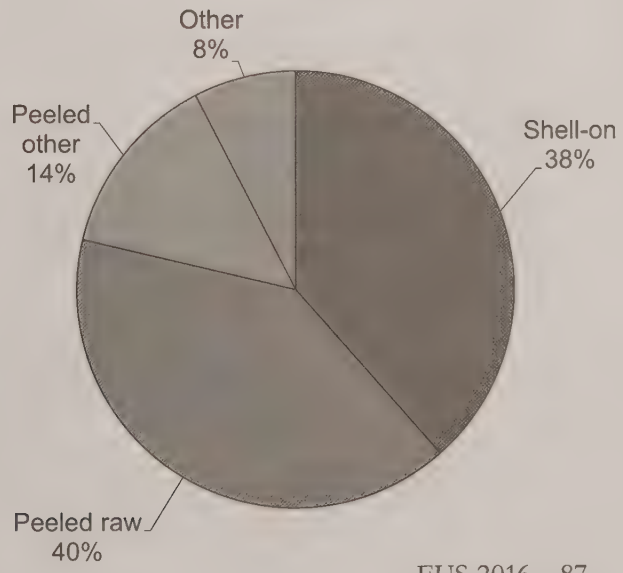
Type of product	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Shell-on (heads off)	494,566	224,334	1,995,561	512,474	232,456	2,161,496
Peeled:						
Canned	7,304	3,313	37,920	3,143	1,426	23,404
Not breaded:						
Raw	512,202	232,333	2,183,997	534,949	242,651	2,317,052
Other	177,549	80,536	881,746	182,676	82,861	885,825
Breaded	98,141	44,517	336,204	97,328	44,148	309,236
Total	**1,289,763**	**585,032**	**5,435,428**	**1,330,570**	**603,543**	**5,697,013**

Source: U.S. Department of Commerce, U.S. Census Bureau.

Shrimp Imports by Major Exporter, 2016, by Volume



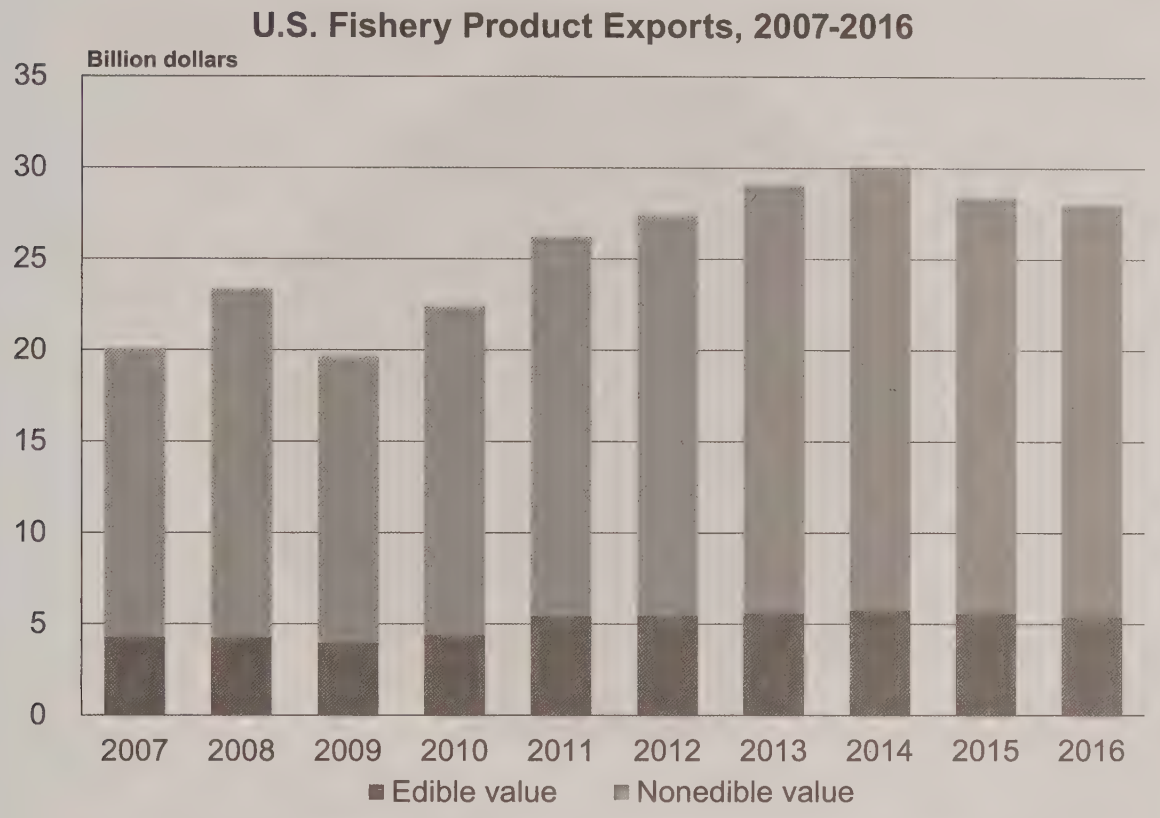
Shrimp Imports by Type, 2016, by Volume



FISH MEAL AND SCRAP IMPORTS, BY COUNTRY OF ORIGIN, 2015 AND 2016

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Chile	65,146	29,550	60,808	63,111	28,627	61,490
Mexico	16,334	7,409	10,868	12,037	5,460	7,094
Norway	3,851	1,747	3,545	9,140	4,146	6,876
Canada	8,300	3,765	6,639	6,909	3,134	5,990
Denmark	3,089	1,401	2,097	5,472	2,482	4,944
France	6,706	3,042	3,139	4,473	2,029	4,340
Argentina	1,129	512	446	6,907	3,133	3,335
Ecuador	452	205	285	2,899	1,315	2,043
Peru	2,385	1,082	1,793	2,385	1,082	1,871
Other	2,842	1,289	2,118	7,183	3,258	5,132
Total	**110,234**	**50,002**	**91,738**	**120,517**	**54,666**	**103,115**

Source: U.S. Department of Commerce, U.S. Census Bureau.

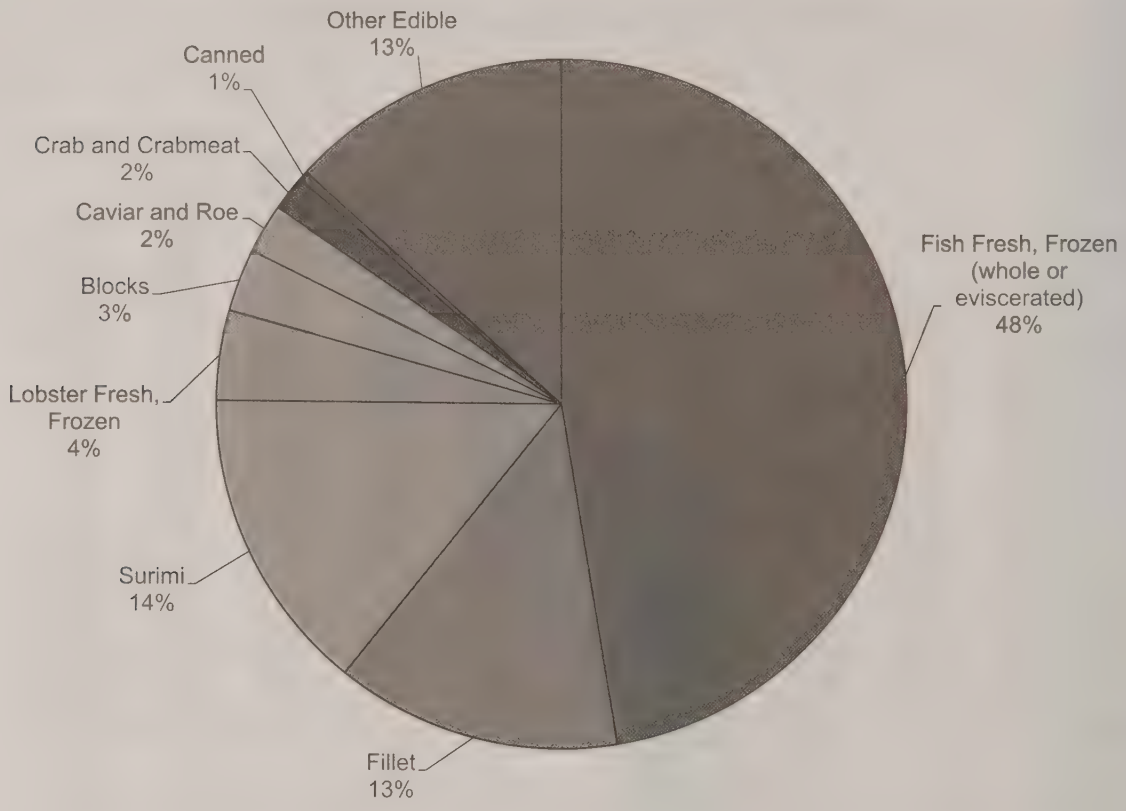


EDIBLE AND NONEDIBLE FISHERY PRODUCTS EXPORTS, 2007-2016 (1)

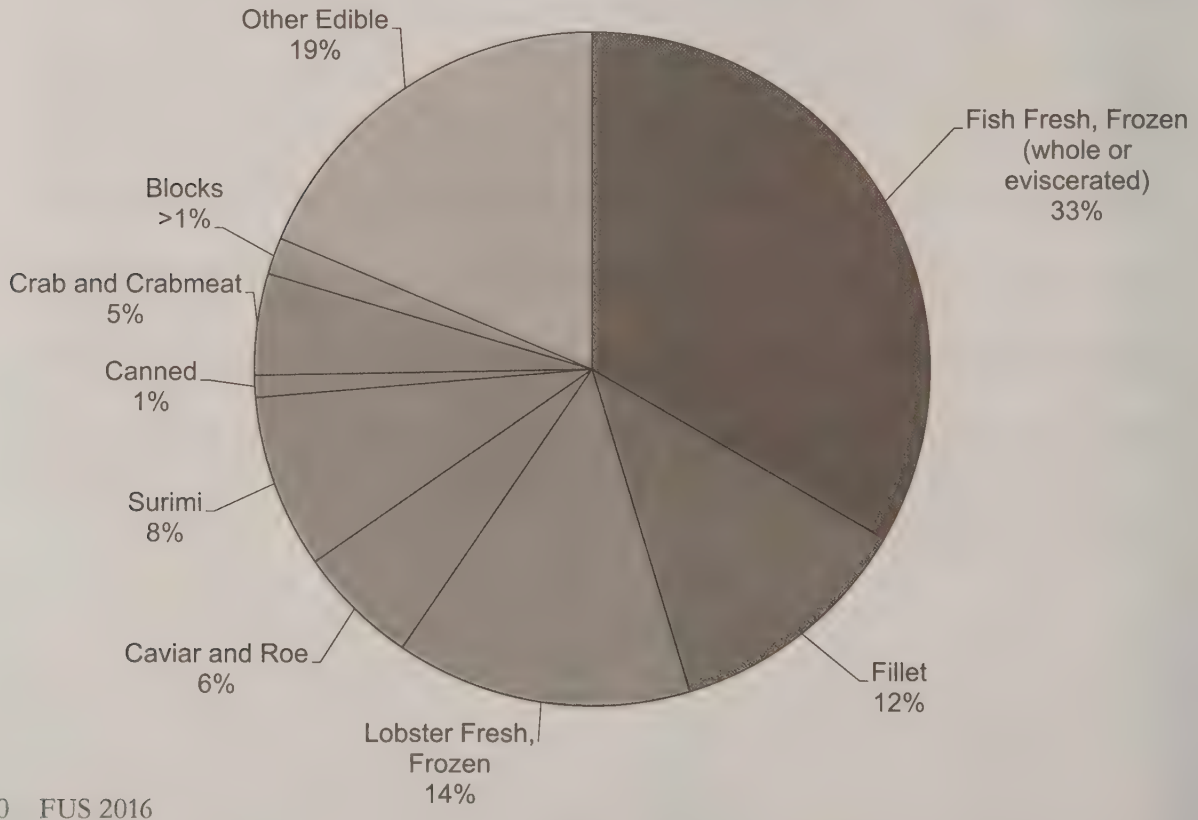
Year	Edible			Nonedible	Total
	Thousand pounds	Metric tons	-------Thousand dollars-------		
2007	2,869,376	1,301,541	4,268,578	15,785,140	20,053,718
2008	2,650,093	1,202,074	4,256,835	19,110,474	23,367,309
2009	2,546,281	1,154,985	3,979,728	15,655,964	19,635,693
2010	2,733,127	1,239,738	4,389,171	17,996,550	22,385,721
2011	3,267,525	1,482,140	5,446,677	20,771,139	26,217,815
2012	3,254,394	1,476,183	5,470,491	21,913,933	27,384,424
2013	3,323,761	1,507,648	5,584,082	23,529,404	29,113,486
2014	3,402,041	1,543,156	5,753,667	24,224,826	29,978,493
2015	3,141,371	1,424,916	5,566,642	22,829,182	28,395,824
2016	**2,926,886**	**1,327,627**	**5,380,531**	**22,605,492**	**27,986,024**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

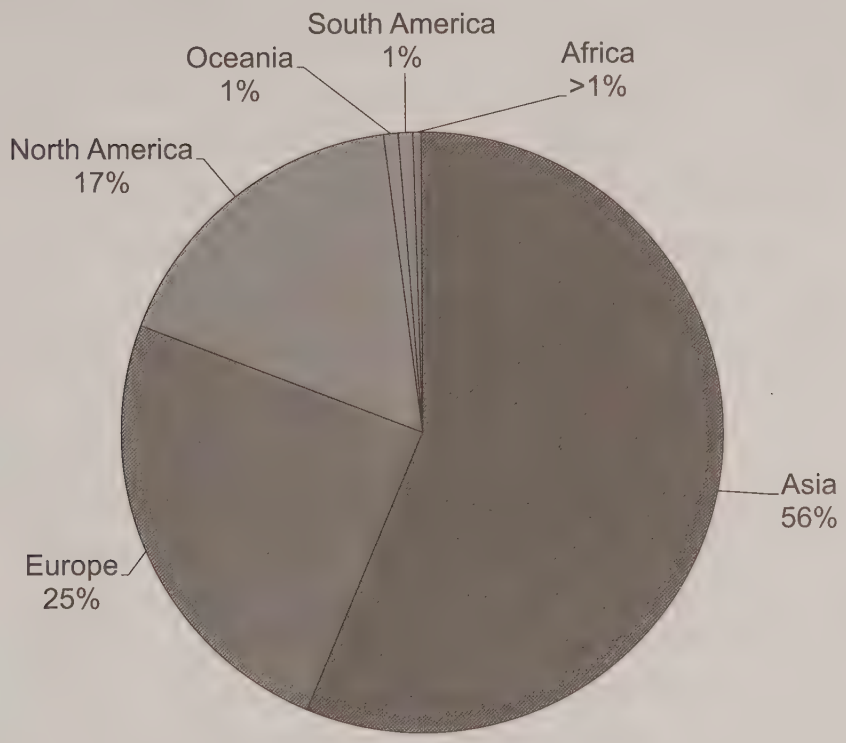
U.S. Exports of Edible Products, Product Type by Volume, 2016



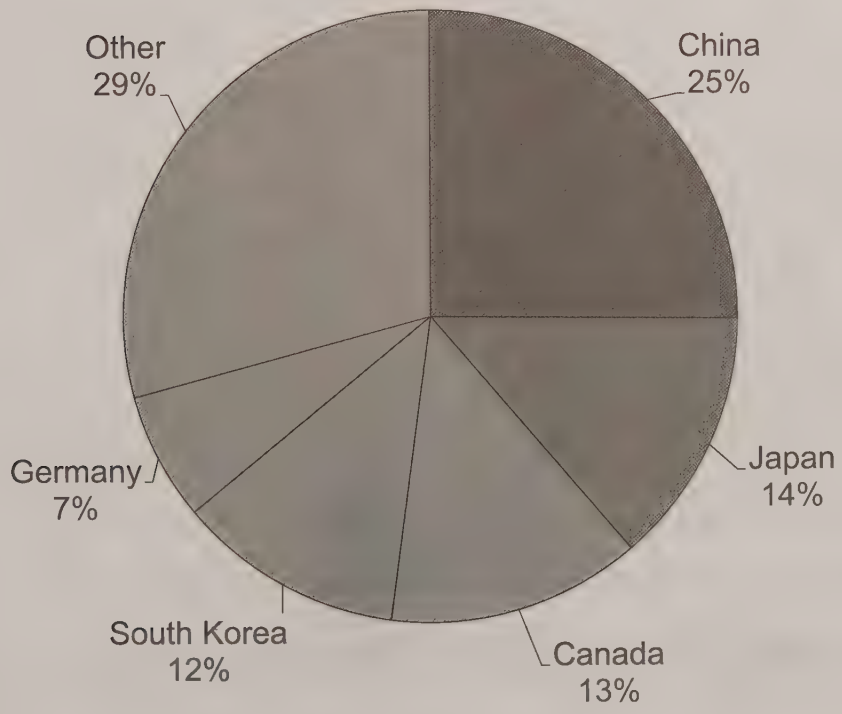
U.S. Exports of Edible Products, Product Type by Value, 2016



U.S. Exports to Major Areas, 2016, by Volume



U.S. Exports to Major Importers, 2016, by Volume



FISHERY PRODUCTS EXPORTS, BY PRINCIPAL ITEMS, 2015 AND 2016 (1)

Item	2015			2016		
Edible fishery products:	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Fresh and frozen:						
Whole or eviscerated:						
Freshwater	11,908	5,402	14,830	13,027	5,909	16,679
Flatfish	257,788	116,932	195,141	281,191	127,548	220,472
Groundfish	484,203	219,633	565,960	453,809	205,846	533,273
Herring	87,963	39,900	45,008	56,035	25,417	30,894
Sablefish	14,751	6,691	82,554	12,325	5,591	80,954
Salmon	430,820	195,418	631,352	311,264	141,188	577,285
Tuna	26,537	12,037	41,887	38,485	17,457	55,094
Other	224,314	101,748	281,451	220,866	100,184	281,908
Fillets and steaks:						
Freshwater	15,350	6,963	51,246	15,298	6,939	47,830
Flatfish	2,824	1,281	12,167	2,422	1,098	8,991
Groundfish	303,782	137,795	393,302	315,593	143,152	389,553
Salmon	44,694	20,273	149,267	45,461	20,621	154,882
Other	14,663	6,651	40,142	12,967	5,882	41,139
Meat whether or not minced	66,261	30,056	72,551	86,095	39,053	94,587
Surimi	402,422	182,538	431,389	420,850	190,896	448,627
Fish sticks	42,818	19,422	85,103	41,564	18,853	78,802
Clams	15,837	7,184	85,896	17,483	7,930	111,886
Crabs	43,252	19,619	242,345	46,217	20,964	250,009
Crabmeat	3,069	1,392	12,301	2,163	981	11,967
Lobsters	114,097	51,754	687,209	122,655	55,636	752,963
Scallops (meats)	21,703	9,845	166,055	22,392	10,157	174,981
Sea urchins	446	202	2,225	520	236	2,625
Shrimp	47,377	21,490	230,051	26,508	12,024	123,915
Squid	161,359	73,192	110,485	129,405	58,698	137,475
Other fish and shellfish	31,589	14,329	134,747	22,056	10,004	102,641
Total, Fresh and Frozen	**2,869,827**	**1,301,745**	**4,764,664**	**2,716,652**	**1,232,265**	**4,729,432**
Canned:						
Salmon	86,701	39,327	197,214	82,088	37,235	178,028
Sardines	838	380	473	432	196	254
Tuna	9,326	4,230	20,860	4,351	1,973	9,087
Abalone	218	99	5,628	92	42	1,437
Crabmeat	1,857	842	9,385	1,971	894	10,756
Shrimp	666	302	2,227	281	128	1,009
Squid	1,937	878	1,097	446	203	269
Other fish and shellfish	37,378	16,955	79,620	19,698	8,935	50,202
Total, canned	**138,920**	**63,014**	**316,504**	**109,361**	**49,606**	**251,042**
Cured:						
Dried	8,654	3,925	12,190	2,555	1,159	4,665
Pickled or salted	1,985	900	2,848	4,354	1,975	7,220
Smoked or kippered	1,200	544	8,385	931	422	7,408
Total, cured	**11,838**	**5,370**	**23,423**	**7,840**	**3,556**	**19,293**
Caviar and roe:						
Herring	4,072	1,847	11,258	1,124	510	2,171
Pollock	44,706	20,279	152,078	30,997	14,060	111,051
Salmon	32,976	14,958	149,265	16,843	7,640	104,538
Sea urchin	925	420	24,165	979	444	24,969
Other	18,908	8,577	70,894	18,334	8,316	69,713
Total, caviar and roe	**101,587**	**46,080**	**407,660**	**68,277**	**30,970**	**312,442**
Edible seaweed and algae	2,764	1,254	14,439	2,495	1,132	12,021
Prepared meals	10,143	4,601	21,478	13,554	6,148	36,397
Other fish and shellfish	6,283	2,850	18,474	7,173	3,254	17,404
Total Edible Products	**3,141,364**	**1,424,914**	**5,566,642**	**2,926,886**	**1,327,627**	**5,380,531**
Nonedible products:						
Meal and scrap	327,509	148,557	181,802	339,881	154,169	223,083
Fish oils	121,089	54,926	144,250	166,595	75,567	176,899
Other	-	-	22,503,130	-	-	22,205,511
Total Nonedible Products	**-**	**-**	**22,829,182**	**-**	**-**	**22,605,492**
Grand Total	**-**	**-**	**28,395,824**	**-**	**-**	**27,986,024**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

EDIBLE AND NONEDIBLE FISHERY PRODUCTS EXPORTS, 2016 (1)

Continent and Country	Edible		Nonedible	Total
	Thousand pounds	Metric tons	-----Thousand dollars-----	
North America:				
Canada	391,707	177,677	1,202,988	3,570,574	4,773,562
Mexico	62,509	28,354	78,905	1,631,883	1,710,788
Sint Maarten	1,464	664	4,698	320,621	325,319
Dominican Republic	8,287	3,759	17,026	306,559	323,585
Panama	3,889	1,764	7,906	197,738	205,644
Other	34,588	15,689	77,495	650,772	728,267
Total	**502,444**	**227,907**	**1,389,018**	**6,678,147**	**8,067,165**
South America:				
Brazil	5,840	2,649	9,417	285,469	294,886
Chile	721	327	2,569	172,811	175,380
Colombia	7,815	3,545	13,317	137,984	151,301
Peru	3,437	1,559	6,602	82,110	88,712
Argentina	101	46	245	88,255	88,500
Other	4,923	2,233	9,089	274,322	283,411
Total	**22,837**	**10,359**	**41,239**	**1,040,951**	**1,082,190**
Europe:				
European Union:				
United Kingdom	41,623	18,880	105,407	954,316	1,059,723
France	71,491	32,428	141,472	873,090	1,014,562
Netherlands	149,913	68,000	240,555	522,083	762,638
Germany	197,574	89,619	269,659	364,771	634,430
Belgium	5,311	2,409	25,533	347,524	373,057
Other	189,095	85,773	352,134	670,851	1,022,985
Total	**655,007**	**297,109**	**1,134,760**	**3,732,635**	**4,867,395**
Other:				
Switzerland	736	334	4,572	1,636,925	1,641,497
Russian Federation	119	54	114	78,391	78,505
Turkey	2,549	1,156	1,858	63,447	65,305
Ukraine	47,965	21,757	43,166	8,329	51,495
Monaco	317	144	248	36,079	36,327
Other	9,716	4,407	16,429	44,835	61,264
Total	**61,403**	**27,852**	**66,387**	**1,868,006**	**1,934,393**
Asia:				
China - Hong Kong	33,600	15,241	192,587	2,786,792	2,979,379
China	736,832	334,225	969,144	1,105,126	2,074,270
Japan	397,194	180,166	684,522	1,146,281	1,830,803
South Korea	348,889	158,255	487,673	496,724	984,397
United Arab Emirates	3,699	1,678	17,726	569,071	586,797
Other	129,053	58,538	333,563	2,476,964	2,810,527
Total	**1,649,268**	**748,103**	**2,685,215**	**8,580,958**	**11,266,173**
Oceania:				
Australia	20,161	9,145	44,626	458,152	502,778
New Zealand	2,116	960	3,966	82,990	86,956
French Polynesia	245	111	806	1,337	2,143
Fiji	99	45	283	1,402	1,685
Micronesia	84	38	83	780	863
Other	247	112	576	1,493	2,069
Total	**22,952**	**10,411**	**50,340**	**546,154**	**596,494**
Africa:				
South Africa	4,524	2,052	3,553	73,418	76,971
Egypt	2,275	1,032	2,486	27,591	30,077
Nigeria	342	155	397	13,442	13,839
Angola	0			6,156	6,156
Ghana	811	368	593	4,608	5,201
Other	5,022	2,278	6,544	33,425	39,969
Total	**12,974**	**5,885**	**13,573**	**158,640**	**172,213**
Grand total	**2,926,886**	**1,327,627**	**5,380,531**	**22,605,492**	**27,986,024**

(1) Figures reflect both domestic and foreign exports (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

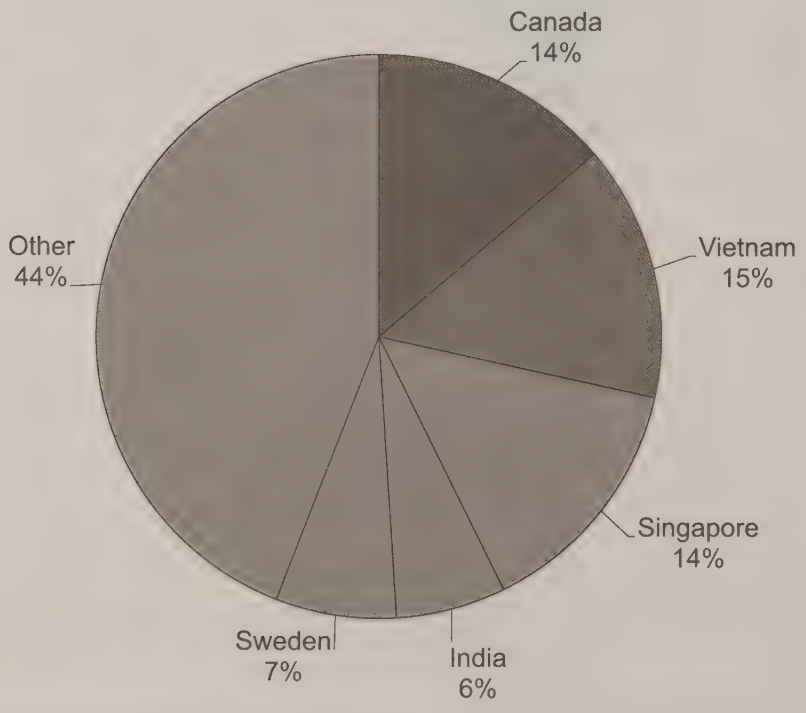
FRESH AND FROZEN SHRIMP EXPORTS, BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Canada	6,272	2,845	$28,298	3,653	1,657	17,411
Vietnam	4,030	1,828	$21,048	3,893	1,766	16,230
Singapore	507	230	$2,372	3,772	1,711	12,973
India	1,991	903	$14,627	1,667	756	11,560
Sweden	3,607	1,636	$17,436	1,832	831	7,595
China	2,575	1,168	$16,442	1,054	478	6,801
Thailand	679	308	$4,077	1,986	901	5,337
Indonesia	1,032	468	$6,924	732	332	5,297
China- Hong Kong	1,378	625	$7,086	503	228	4,497
Other	26,684	11,479	111,741	7,416	3,364	36,214
Total	**47,377**	**21,490**	**$230,051**	**26,508**	**12,024**	**123,915**

(1) Figures reflect both domestic and foreign (re-exports).

Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Shrimp Exports by Major Importer, 2016 by Volume

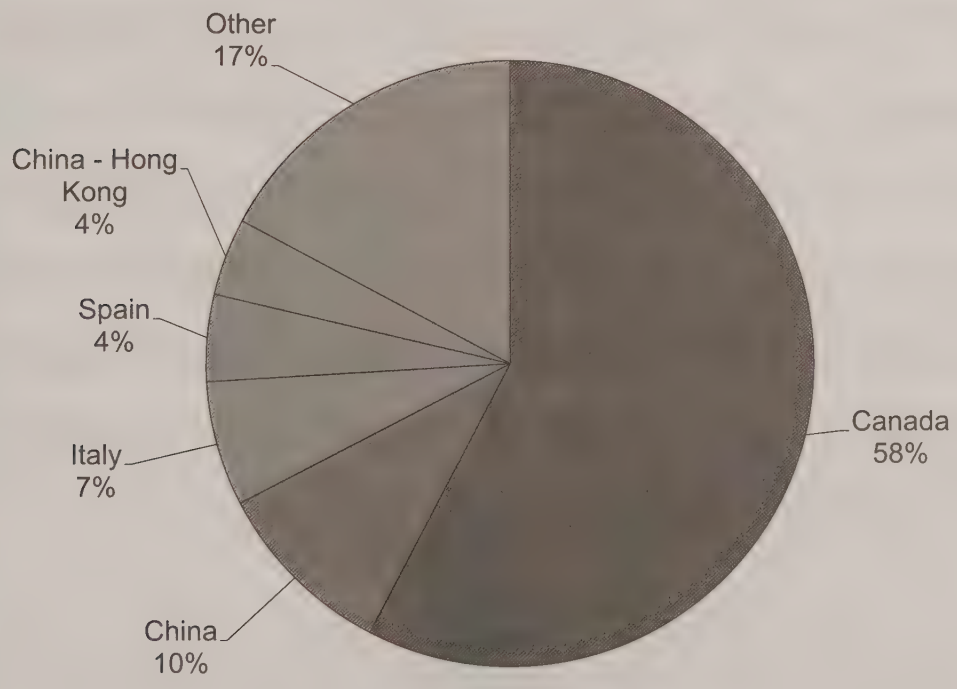


FRESH AND FROZEN LOBSTER EXPORTS, BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Canada	67,948	30,821	334,845	70,726	32,081	351,179
China	8,622	3,911	58,978	11,978	5,433	91,926
Italy	7,363	3,340	54,749	8,170	3,706	59,228
Spain	5,620	2,549	42,290	5,681	2,577	44,598
China - Hong Kong	4,299	1,950	35,267	5,053	2,292	43,990
Vietnam	4,667	2,117	38,813	3,234	1,467	27,135
France	3,746	1,699	26,433	3,902	1,770	26,789
South Korea	2,094	950	15,457	2,683	1,217	18,983
United Kingdom	2,282	1,035	18,190	1,936	878	15,294
Other	7,456	3,382	62,187	9,292	4,215	73,841
Total	**114,097**	**51,754**	**687,209**	**122,655**	**55,636**	**752,963**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Lobster Exports by Major Importer, 2016 by Volume



FRESH AND FROZEN SALMON EXPORTS, WHOLE OR EVISCERATED, BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Canada	41,592	18,866	92,093	62,088	28,163	164,056
China	212,493	96,386	241,770	111,445	50,551	142,184
Japan	39,923	18,109	85,597	25,540	11,585	56,912
South Korea	32,302	14,652	56,540	23,589	10,700	54,098
Germany	16,605	7,532	33,279	15,221	6,904	38,282
France	12,414	5,631	17,718	11,027	5,002	22,251
Thailand	39,176	17,770	48,755	12,884	5,844	18,571
Netherlands	4,616	2,094	9,735	5,935	2,692	12,427
India	-	-	-	5,088	2,308	9,354
Other	31,698	14,378	45,865	38,446	17,439	59,150
Total	**430,819**	**195,418**	**631,352**	**311,263**	**141,188**	**577,285**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

CANNED SALMON EXPORTS, BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Canada	31,951	14,493	85,662	36,466	16,541	88,082
United Kingdom	32,538	14,759	65,434	22,681	10,288	47,071
Australia	11,814	5,359	25,946	11,753	5,331	22,951
Netherlands	3,078	1,396	5,910	3,510	1,592	6,223
Mexico	2,727	1,237	5,347	1,933	877	3,992
New Zealand	1,559	707	2,642	1,459	662	2,360
Trinidad and Tobago	575	261	1,301	582	264	1,129
Israel	108	49	234	743	337	839
Bahamas	132	60	272	293	133	532
Other	2,218	1,006	4,466	2,668	1,210	4,849
Total	**86,700**	**39,327**	**197,214**	**82,088**	**37,235**	**178,028**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

FROZEN SURIMI EXPORTS,
BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
South Korea	136,593	61,958	158,090	162,858	73,872	184,160
Japan	183,557	83,261	189,237	153,980	69,845	156,847
France	19,396	8,798	19,065	23,155	10,503	22,858
Spain	16,812	7,626	17,363	20,721	9,399	22,031
Netherlands	8,565	3,885	9,717	14,522	6,587	16,411
Lithuania	9,264	4,202	9,600	12,795	5,804	13,052
Thailand	6,202	2,813	6,879	10,783	4,891	10,850
Germany	10,494	4,760	9,379	8,668	3,932	8,744
China	5,540	2,513	6,036	4,974	2,256	5,375
Other	6,000	2,722	6,023	8,394	3,807	8,299
Total	**402,422**	**182,538**	**431,389**	**420,850**	**190,896**	**448,627**

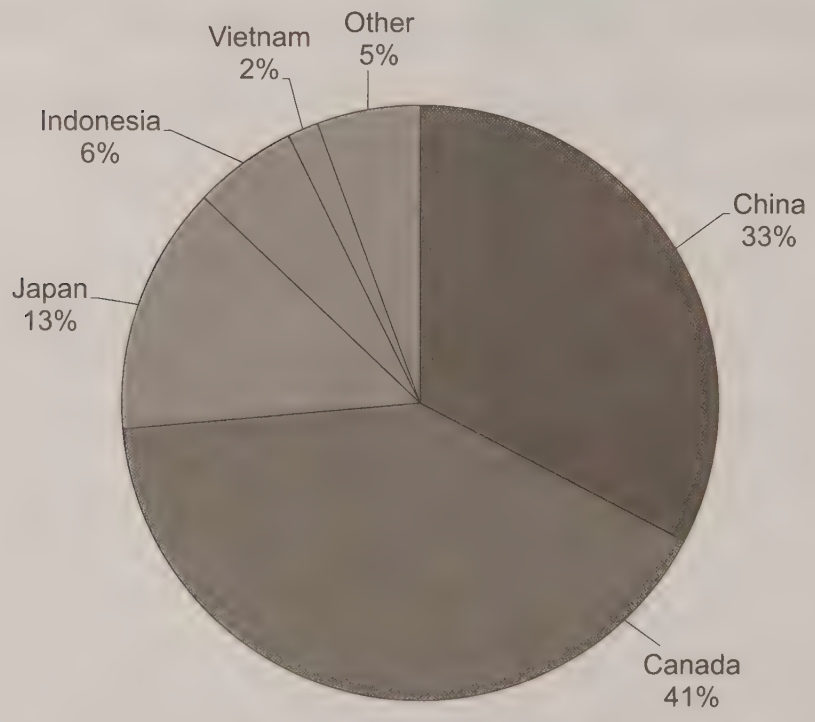
(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

FRESH AND FROZEN CRAB EXPORTS,
BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
China	13,602	6,170	70,370	15,097	6,848	87,972
Canada	13,475	6,112	70,995	18,922	8,583	85,726
Japan	9,537	4,326	65,443	6,239	2,830	41,520
Indonesia	2,685	1,218	12,507	2,597	1,178	11,645
Vietnam	1,243	564	5,857	772	350	4,626
Thailand	375	170	2,475	470	213	3,902
China - Hong Kong	461	209	3,910	448	203	3,877
United Arab Emirates	66	30	562	212	96	1,505
South Korea	578	262	2,768	212	96	1,481
Other	1,230	558	7,458	1,250	567	7,755
Total	**43,252**	**19,619**	**242,345**	**46,217**	**20,964**	**250,009**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Crab Exports by Major Importer, 2016, by Volume

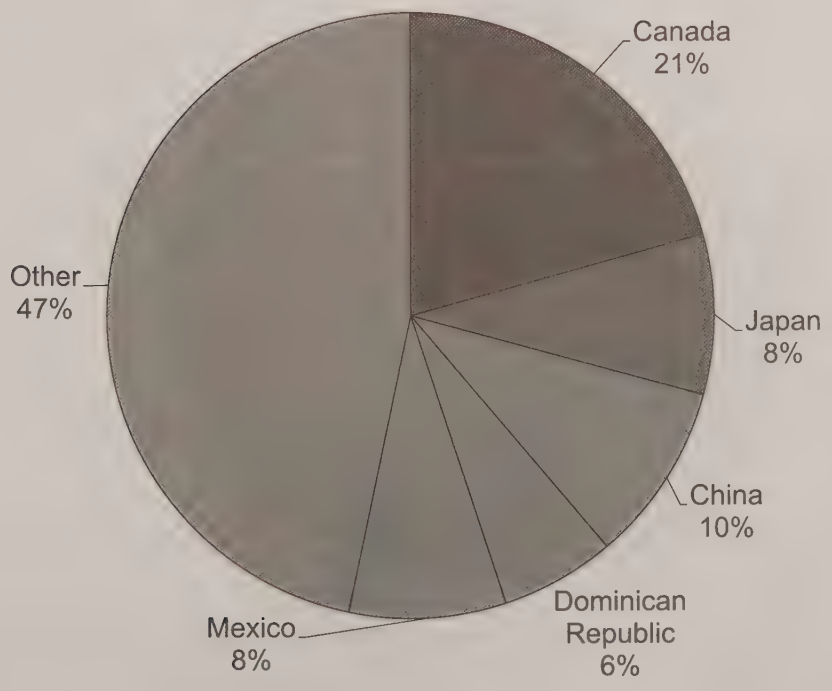


FRESH AND FROZEN CRABMEAT EXPORTS, BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Canada	522	237	2,783	448	203	2,870
Japan	714	324	1,992	185	84	1,205
China	564	256	1,633	207	94	1,176
Dominican Republic	35	16	174	132	60	867
Mexico	254	115	778	181	82	853
South Korea	42	19	197	117	53	552
Panama	75	34	149	97	44	333
Jamaica	40	18	210	57	26	326
Thailand	11	5	85	64	29	322
Other	811	368	4,300	675	306	3,463
Total	**3,069**	**1,392**	**12,301**	**2,163**	**981**	**11,967**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Crabmeat Exports by Major Importer, 2016, by Volume

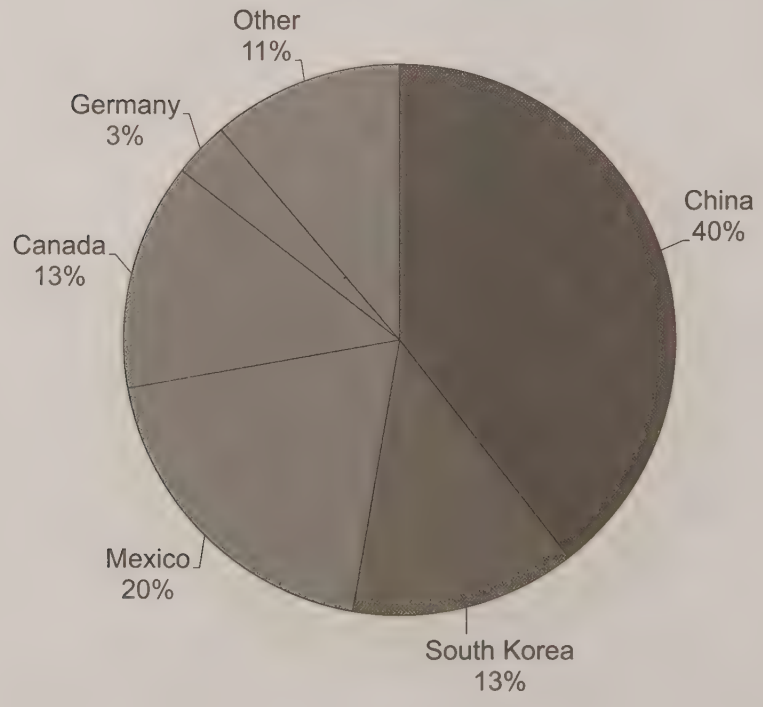


FISH MEAL EXPORTS,
BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
China	117,208	53,165	65,401	134,198	60,872	90,755
South Korea	46,012	20,871	40,839	44,952	20,390	35,240
Mexico	69,754	31,640	19,741	66,233	30,043	33,145
Canada	40,463	18,354	26,896	45,320	20,557	29,550
Germany	15,534	7,046	8,604	11,122	5,045	10,750
Taiwan	7,271	3,298	3,714	15,538	7,048	9,921
Japan	6,881	3,121	5,413	8,589	3,896	5,715
Dominican Republic	5,922	2,686	4,245	4,683	2,124	2,035
Thailand	833	378	707	1,841	835	1,579
Other	17,632	7,998	6,242	7,405	3,359	4,393
Total	**327,509**	**148,557**	**181,802**	**339,881**	**154,169**	**223,083**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Fish Meal Exports by Major Importer, 2016, by Volume

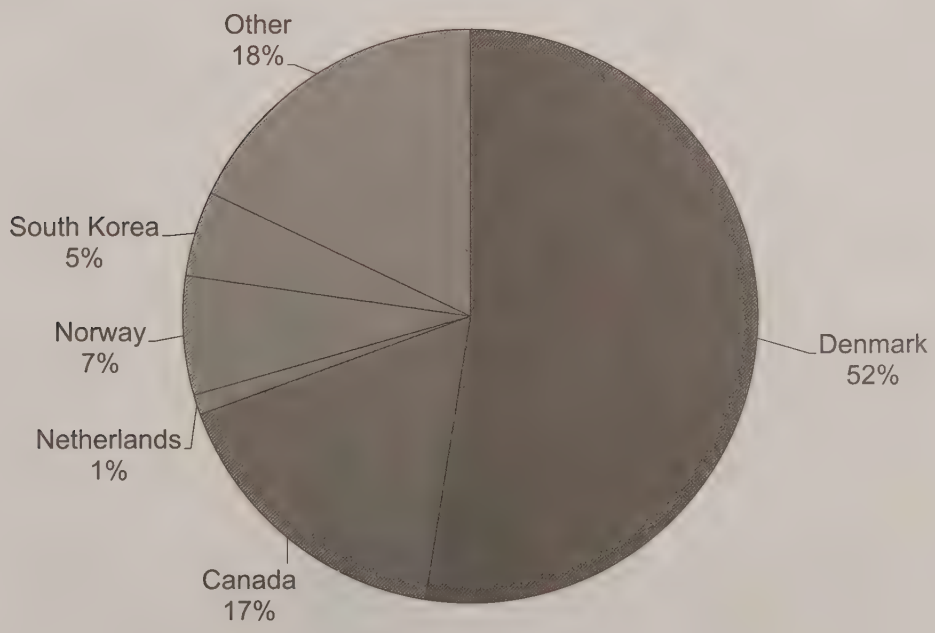


FISH AND MARINE ANIMAL OIL EXPORTS,
BY COUNTRY OF DESTINATION, 2015 AND 2016 (1)

Country	2015			2016		
	Thousand pounds	Metric tons	Thousand dollars	Thousand pounds	Metric tons	Thousand dollars
Denmark	15,688	7,116	16,352	87,520	39,699	68,838
Canada	28,102	12,747	28,048	28,219	12,800	29,691
Netherlands	2,703	1,226	12,332	1,876	851	9,782
Norway	22,652	10,275	19,379	11,162	5,063	9,455
South Korea	5,234	2,374	4,173	8,007	3,632	8,708
China - Hong Kong	884	401	7,569	750	340	8,039
Chile	14,888	6,753	11,931	7,489	3,397	5,392
Taiwan	3,413	1,548	3,956	4,480	2,032	5,054
Japan	985	447	901	9,881	4,482	4,816
Other	26,541	12,039	39,609	7,211	3,271	27,124
Total	**121,090**	**54,926**	**144,250**	**166,595**	**75,567**	**176,899**

(1) Figures reflect both domestic and foreign (re-exports).
Source: U.S. Department of Commerce, U.S. Census Bureau.

U.S. Fish Oil Exports by Major Importer, 2016, by Volume



U.S. Supply of Fishery Products

U.S. SUPPLY OF EDIBLE AND INDUSTRIAL FISHERY PRODUCTS, 2007-2016

(Round weight)

Year	Domestic Commercial Landings	Imports	Exports	Total
	Million pounds			
2007	9,309	11,252	7,057	13,504
2008	8,326	10,875	6,353	12,848
2009	8,031	10,868	5,738	13,161
2010	8,231	11,517	6,129	13,619
2011	9,858	11,248	7,695	13,411
2012	9,634	11,123	8,259	12,498
2013	9,870	11,118	8,915	12,073
2014	9,486	11,945	9,344	12,087
2015	9,718	11,709	8,771	12,656
2016	**9,572**	**11,936**	**8,675**	**12,833**

U.S. SUPPLY OF EDIBLE FISHERY PRODUCTS, 2007-2016

(Round weight)

Year	Domestic Commercial Landings	Imports	Exports	Total
	Million pounds			
2007	7,490	10,763	5,761	12,492
2008	6,633	10,404	5,253	11,784
2009	6,198	10,439	4,760	11,877
2010	6,526	11,034	5,170	12,389
2011	7,909	10,823	6,602	12,130
2012	7,477	10,588	6,474	11,591
2013	8,043	10,529	7,066	11,506
2014	7,828	11,286	7,365	11,749
2015	7,750	11,098	6,936	11,912
2016	**7,484**	**11,261**	**6,772**	**11,973**

U.S. SUPPLY OF INDUSTRIAL FISHERY PRODUCTS, 2007-2016

(Round weight)

Year	Domestic Commercial Landings	Imports	Exports	Total
	Million pounds			
2007	1,819	489	1,296	1,012
2008	1,692	471	1,100	1,063
2009	1,833	430	978	1,285
2010	1,705	483	959	1,229
2011	1,949	425	1,093	1,281
2012	2,157	535	1,785	907
2013	1,827	589	1,850	566
2014	1,658	659	1,979	338
2015	1,968	611	1,835	744
2016	**2,088**	**675**	**1,903**	**860**

U.S. SUPPLY OF COMMERCIAL FINFISH AND SHELLFISH, 2015 and 2016

Item	Domestic Commercial landings		Imports		Exports		Total	
	2015	2016	2015	2016	2015	2016	2015	2016
	-Thousand pounds—round weight-							
Edible								
Finfish	6,621,028	6,392,630	7,240,872	7,319,100	6,348,030	6,283,815	7,513,870	7,427,915
Shellfish, et al.	1,129,044	1,091,866	3,856,938	3,941,982	587,994	487,996	4,397,988	4,545,852
Subtotal	**7,750,072**	**7,484,496**	**11,097,810**	**11,261,082**	**6,936,024**	**6,771,811**	**11,911,858**	**11,973,767**
Industrial								
Finfish	1,961,584	2,050,183	611,053	674,893	1,835,123	1,903,333	737,514	821,743
Shellfish, et al.	5,971	37,359	(1)	(1)	(1)	(1)	5,971	37,359
Subtotal	**1,967,555**	**2,087,542**	**611,053**	**674,893**	**1,835,123**	**1,903,333**	**743,485**	**859,102**
Total:								
Finfish	8,582,612	8,442,813	7,851,925	7,993,993	8,183,153	8,187,149	8,251,384	8,249,658
Shellfish, et al.	1,135,015	1,129,225	3,856,938	3,941,982	587,994	487,996	4,403,959	4,583,211
Grand Total	**9,717,627**	**9,572,038**	**11,708,863**	**11,935,975**	**8,771,147**	**8,675,145**	**12,655,343**	**12,832,869**

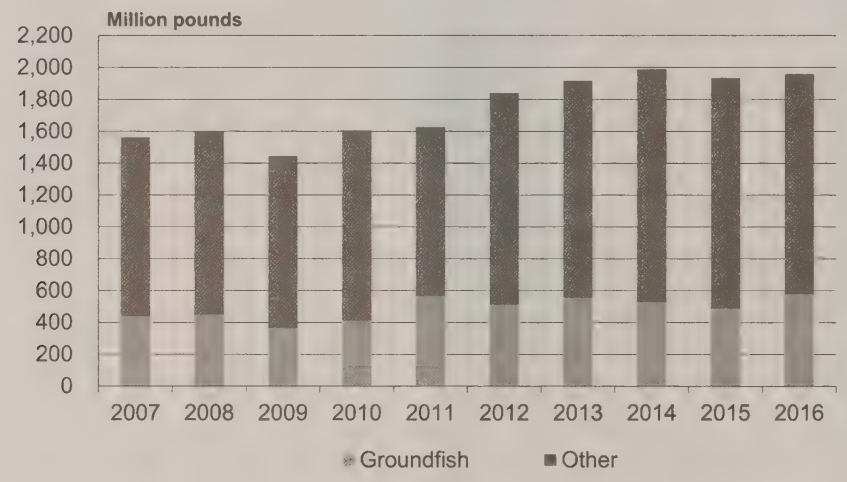
(1) Not available.
Note: Total landings shown in this table may not agree with landings reported in other tables due to rounding.

U.S. SUPPLY OF ALL FILLETS AND STEAKS, 2007-2016 (edible weight)

Year	U.S. Production (1)	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	632,196	1,255,476	1,887,672	324,237	1,563,435
2008	655,604	1,255,249	1,910,853	308,119	1,602,734
2009	511,389	1,250,960	1,762,349	316,308	1,446,041
2010	584,563	1,326,331	1,910,894	304,413	1,606,481
2011	774,666	1,370,445	2,145,111	515,724	1,629,387
2012	691,764	1,467,223	2,158,987	318,111	1,840,876
2013	753,123	1,538,357	2,291,480	373,512	1,917,968
2014	822,030	1,576,748	2,398,778	408,710	1,990,068
2015	724,590	1,593,436	2,318,026	381,305	1,936,721
2016	**749,820**	**1,602,883**	**2,352,703**	**391,742**	**1,960,961**

(1) Includes fillets used to produce blocks.

U.S. Supply of Fillets and Steaks, 2007-2016



U.S. SUPPLY OF GROUNDFISH FILLETS AND STEAKS, 2007-2016 (edible weight)

Year	U.S. Production (1)	Imports	Total	Exports (2)	Total Supply
	Thousand pounds				
2007	483,267	215,350	698,617	261,743	436,874
2008	471,758	198,405	670,163	222,398	447,765
2009	367,572	205,314	572,886	209,596	363,290
2010	396,078	214,803	610,881	199,966	410,915
2011	605,292	235,354	840,646	275,636	565,010
2012	516,727	230,972	747,699	235,967	511,732
2013	601,315	245,427	846,742	292,509	554,234
2014	627,159	236,609	863,768	336,241	527,527
2015	568,029	222,435	790,464	303,781	486,683
2016	**593,251**	**299,453**	**892,704**	**315,593**	**577,111**

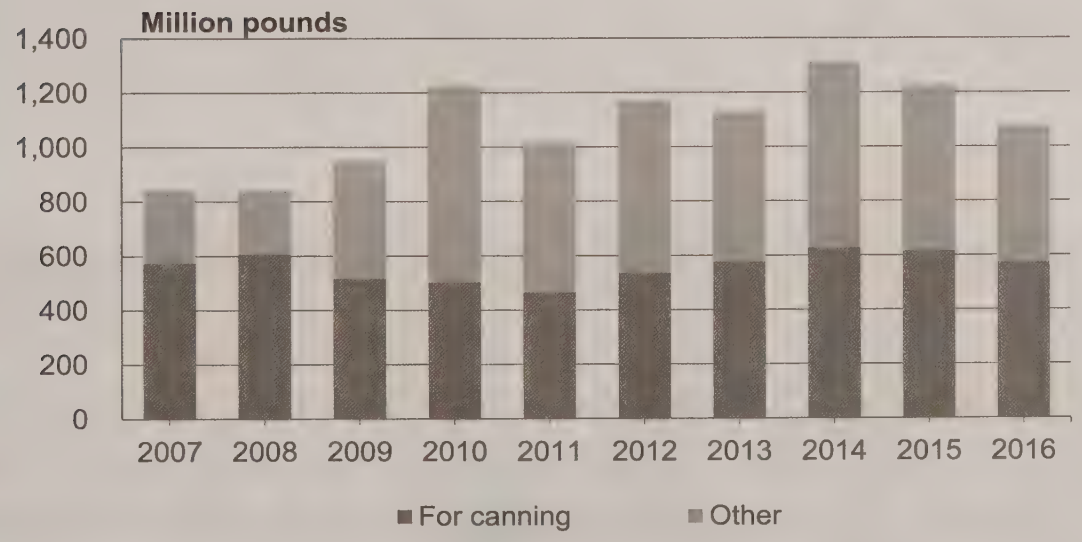
(1) Includes fillets used to produce blocks. Species include cod, cusk, haddock, hake, pollock, and ocean perch.
(2) Species include cod and pollock.

U.S. SUPPLY OF FRESH AND FROZEN TUNA, 2007-2016 (round weight)

Year	U.S. Commercial Landings (1)			Imports (2)			Exports Total	Total Supply
	For canning	Other	Total	For Canning	Other	Total		
	Thousand pounds							
2007	124,366	84,138	208,504	450,251	223,750	674,001	39,266	843,239
2008	176,456	122,300	298,756	430,185	151,939	582,124	40,720	840,160
2009	125,176	314,050	439,226	392,160	165,728	557,888	45,978	951,136
2010	68,936	461,972	530,908	433,475	304,366	737,841	43,426	1,225,323
2011	95,232	405,443	500,675	370,180	187,754	557,934	42,488	1,016,121
2012	136,680	484,800	621,480	399,830	212,879	612,709	65,469	1,168,720
2013	132,374	435,666	568,040	444,342	165,229	609,571	46,507	1,131,104
2014	169,074	533,297	702,371	459,517	188,218	647,735	38,839	1,311,267
2015	161,428	442,801	604,229	454,219	209,488	663,707	43,349	1,224,587
2016	**173,454**	**301,033**	**474,487**	**399,291**	**248,681**	**647,972**	**44,528**	**1,077,931**

(1) Includes quantity of fish landed at other ports by U.S.-flag vessels.
(2) Includes landings in American Samoa of foreign caught fish.

U.S. Supply of Fresh and Frozen Tuna, 2007-2016



U.S. SUPPLY OF FRESH AND FROZEN SALMON, 2007-2016 (round weight)

Year	U.S. Commercial Landings			Imports Total	Exports Total	Total Supply
	For Canning	Other	Total			
	Thousand pounds					
2007	279,560	605,423	884,983	835,675	392,833	1,327,825
2008	189,860	468,482	658,342	835,675	383,841	1,110,176
2009	216,960	488,242	705,202	816,027	350,420	1,170,809
2010	223,345	564,395	787,740	783,370	428,024	1,143,086
2011	225,057	555,031	780,088	826,115	441,683	1,164,520
2012	182,987	452,818	635,805	1,013,010	381,181	1,267,634
2013	308,729	760,341	1,069,070	1,027,823	555,017	1,541,877
2014	136,586	583,615	720,201	1,158,950	484,204	1,394,947
2015	255,784	810,263	1,066,047	1,245,408	605,761	1,705,694
2016	**81,394**	**479,642**	**561,036**	**1,269,733**	**463,739**	**1,367,030**

U.S. SUPPLY OF CANNED SALMON, 2007-2016 (canned weight)

Year	U.S. Pack	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	142,449	22,289	164,738	114,203	50,535
2008	123,930	19,749	143,679	117,876	25,803
2009	141,917	22,789	164,706	97,342	67,364
2010	146,430	17,048	163,478	90,662	72,816
2011	147,699	14,290	161,989	112,024	49,965
2012	120,022	16,043	136,065	91,006	45,059
2013	202,752	25,580	228,332	100,472	127,860
2014	89,371	21,021	110,392	94,781	15,611
2015	167,643	19,771	187,414	86,703	100,711
2016	**52,030**	**18,916**	**70,946**	**82,088**	**(11,142)**

Our method of calculating canned salmon supply does not incorprate annual beginning and ending warehouse stock. Because of the biennial nature of the pink salmon fishery some salmon canned in one year may be exported in a following year. The negative value for total salmon supply this year is a result of this interannnual variation.

U.S. SUPPLY OF CANNED TUNA, 2007-2016 (canned weight)

Year	U.S. Pack	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	436,297	378,457	814,754	3,128	811,626
2008	473,941	377,776	851,717	3,743	847,974
2009	369,231	397,981	767,212	4,969	762,243
2010	395,449	442,360	837,809	3,946	833,862
2011	384,904	412,696	797,600	4,210	793,390
2012	387,022	353,765	740,787	5,822	734,965
2013	383,565	347,392	730,957	5,443	725,514
2014	390,993	342,105	733,098	5,020	728,078
2015	399,866	313,373	713,239	9,325	703,914
2016	**382,865**	**292,326**	**675,191**	**4,351**	**670,840**

U.S. SUPPLY OF KING CRAB, 2007-2016 (round weight)

Year	U.S. Commercial Landings	Imports (1)	Total	Exports (1)	Total Supply
	Thousand pounds				
2007	25,939	124,503	150,442	16,880	133,562
2008	27,208	64,409	91,617	20,977	70,640
2009	22,391	64,205	86,596	24,504	62,092
2010	24,042	42,589	66,631	22,555	44,076
2011	17,003	40,163	57,166	21,846	35,320
2012	16,358	57,321	73,679	11,169	62,510
2013	15,434	50,647	66,081	12,581	53,500
2014	16,666	49,649	66,315	12,372	53,943
2015	17,532	45,909	63,441	10,695	52,747
2016	**14,592**	**40,736**	**55,328**	**5,600**	**49,728**

(1) Imports, exports, foreign exports were converted to round (live) weight by using these conversion factors: frozen, 1.75; meat, 4.50; and canned, 5.33.

U.S. SUPPLY OF SNOW (TANNER) CRABS, 2007-2016 (round weight)

Year	U.S. Commercial Landings	Imports (1)	Total	Exports (2)	Total Supply
	Thousand pounds				
2007	38,283	182,350	220,633	12,369	208,264
2008	66,078	160,834	226,912	30,220	196,692
2009	61,530	195,030	256,560	32,751	223,809
2010	50,473	172,481	222,954	26,405	196,549
2011	60,017	160,832	220,849	43,651	177,198
2012	92,991	177,010	270,001	68,015	201,986
2013	68,937	206,192	275,129	46,069	229,060
2014	63,103	170,994	234,092	39,690	194,395
2015	100,095	184,049	284,144	45,087	239,056
2016	**51,345**	**186,431**	**237,776**	**32,970**	**204,806**

(1) Converted to round (live) weight by multiplying fresh and frozen by 1.50; meat, 4.50; and canned, 5.00.
(2) Domestic merchandise converted to round (live) weight by multiplying frozen weight by 2.13 (believed to be mostly sections); meat, 4.50; and canned, 5.33. Foreign exports converted using the same factors as imports.

U.S. SUPPLY OF CANNED CRABMEAT, 2007-2016 (canned weight)

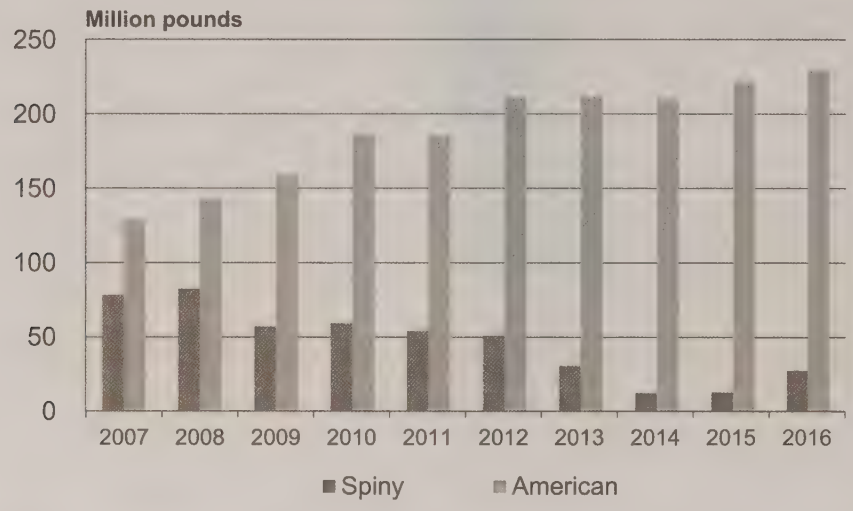
Year	U.S. Pack	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	5	67,306	67,311	1,265	66,046
2008	20	70,064	70,084	2,504	67,580
2009	11	60,957	60,968	2,191	58,777
2010	699	67,979	68,678	2,952	65,726
2011	226	66,167	66,393	3,508	62,885
2012	260	71,184	71,444	4,120	67,324
2013	60	64,088	64,148	3,137	61,011
2014	63	64,235	64,298	2,542	61,756
2015	43	65,302	65,345	1,865	63,480
2016	**180**	**62,331**	**62,511**	**1,971**	**60,540**

U.S. SUPPLY OF AMERICAN LOBSTERS, 2007-2016 (Round weight)

Year	U.S. Commercial Landings	Imports (1)	Total	Exports (2)	Total Supply
	Thousand pounds				
2007	81,303	106,214	187,517	59,018	128,499
2008	81,835	118,545	200,380	56,843	143,537
2009	96,890	114,794	211,684	52,979	158,705
2010	115,433	141,993	257,426	71,398	186,028
2011	126,318	148,246	274,564	88,375	186,190
2012	149,550	167,832	317,382	106,463	210,919
2013	149,323	168,446	317,769	105,880	211,889
2014	147,786	179,987	327,773	117,574	210,199
2015	145,921	189,503	335,424	113,517	221,907
2016	**158,561**	**193,918**	**352,479**	**122,351**	**230,128**

(1) Only imports from Canada and St. Pierre and Miquelon are considered American lobster and were converted to round (live) weight by using these conversion factors: 1.00, whole; 4.50, meat; and 4.64, canned.
(2) Domestic exports converted to live weight by 1.00, whole; 4.00, meat; and 4.50, canned. Foreign exports converted using import factors.

U.S. Supply of Lobster, 2007-2016



U.S. SUPPLY OF SPINY LOBSTERS, 2007-2016 (Round weight)

Year	U.S. Commercial Landings	Imports (1)	Total	Exports (2)	Total Supply
	Thousand pounds				
2007	4,426	86,688	91,114	12,723	78,391
2008	4,196	88,131	92,327	9,551	82,776
2009	4,729	67,406	72,135	14,845	57,290
2010	6,371	79,927	86,298	26,760	59,538
2011	6,355	67,690	74,045	19,751	54,295
2012	4,808	61,530	66,338	15,119	51,220
2013	6,172	63,638	69,810	39,097	30,714
2014	4,778	56,526	61,304	48,815	12,489
2015	6,520	59,144	65,664	52,744	12,920
2016	**5,861**	**52,523**	**58,384**	**30,721**	**27,664**

(1) Imports were converted to round (live) weight by using these conversion factors: 1.00, whole; 3.00, tails; 4.35, other; and 4.50, canned.
(2) Domestic exports converted to round weight by using: 1.00, whole; 3.00, tails; 4.00, other; and 4.50 canned. Foreign exports converted using import factors.

U.S. SUPPLY OF CLAMS, 2007-2016 (meat weight)

Year	U.S. Commercial Landings (1)	Imports (2)	Total	Exports	Total supply
	Thousand pounds				
2007	115,848	19,423	135,271	7,833	127,438
2008	107,772	21,008	128,780	8,065	120,715
2009	101,137	21,875	123,012	7,243	115,769
2010	88,891	22,941	111,832	6,675	105,157
2011	86,449	25,260	111,709	4,318	107,391
2012	90,563	25,006	115,569	6,961	108,608
2013	91,090	27,995	119,085	8,338	110,747
2014	90,744	20,831	111,575	2,815	108,760
2015	86,096	22,299	108,395	2,916	105,480
2016	**88,886**	**22,189**	**111,075**	**2,189**	**108,886**

(1) For species breakout see the "U.S. Domestic Landings by Species" table in the U.S. Commercial Landings section.
(2) Imports and exports were converted to meat weight by using these conversion factors: 0.40 in shell or shucked; 0.30, canned chowder and juice; and 0.93, other.

U.S. SUPPLY OF OYSTERS, 2007-2016 (meat weight)

Year	U.S. Commercial Landings	Imports (1)	Total	Exports	Total Supply
	Thousand pounds				
2007	37,755	39,682	77,437	7,856	69,581
2008	30,162	32,563	62,725	9,017	53,708
2009	35,571	31,745	67,316	8,604	58,712
2010	28,080	34,656	62,736	5,922	56,814
2011	28,504	42,614	71,118	7,989	63,129
2012	33,087	27,277	60,364	6,253	54,111
2013	35,399	30,545	65,944	5,976	59,968
2014	34,135	30,153	66,889	6,436	58,352
2015	27,535	34,883	65,766	6,380	57,437
2016	**33,295**	**36,618**	**69,913**	**5,844**	**64,069**

(1) Imports and exports were converted to meat weight by using these conversion factors: 0.93, canned; 3.12, canned smoked; and 0.75, other.

U.S. SUPPLY OF SCALLOPS, 2007-2016 (meat weight)

Year	U.S. Commercial Landings (1)	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	58,743	55,223	113,966	21,482	92,484
2008	53,658	55,904	109,562	21,413	88,149
2009	58,275	53,816	112,091	21,951	90,140
2010	57,584	50,424	108,008	23,137	84,871
2011	59,277	55,483	114,760	29,941	84,819
2012	57,471	33,565	91,036	31,512	59,524
2013	41,173	59,910	101,083	26,693	74,390
2014	33,980	59,449	93,429	25,533	67,896
2015	35,824	47,879	83,703	21,703	62,000
2016	**40,611**	**49,428**	**90,039**	**22,392**	**67,647**

(1) For species breakout see the "U.S. Domestic Landings by Species" table in the U.S. Commercial Landings section.

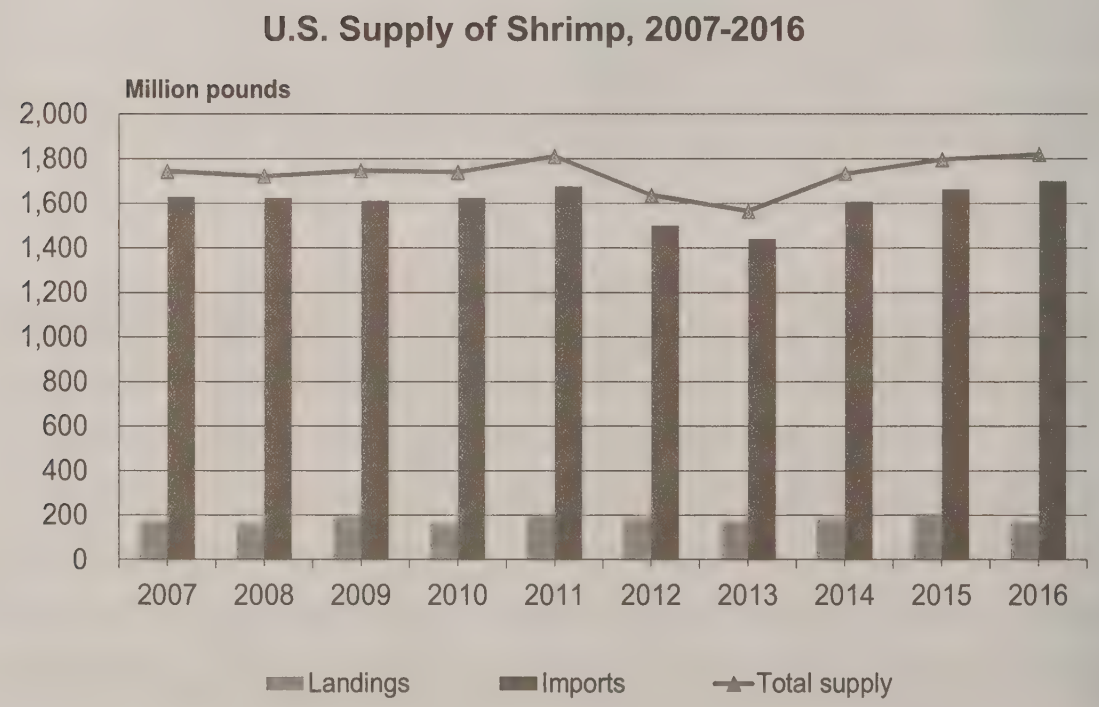
U.S. SUPPLY OF ALL FORMS OF SHRIMP, 2007-2016 (head-off weight)

Year	U.S. Commercial Landings (1)	Imports (2)	Total	Exports (3)	Total Supply
	Thousand pounds				
2007	174,623	1,630,531	1,805,154	61,681	1,743,473
2008	158,725	1,624,438	1,783,163	61,365	1,721,798
2009	187,062	1,611,019	1,798,081	52,438	1,745,643
2010	159,355	1,625,165	1,784,520	45,022	1,739,498
2011	192,033	1,675,412	1,867,445	57,300	1,810,144
2012	186,073	1,500,771	1,686,844	51,359	1,635,484
2013	173,754	1,440,126	1,613,880	48,994	1,564,886
2014	180,245	1,609,059	1,789,304	56,023	1,733,281
2015	199,476	1,664,556	1,864,032	67,348	1,796,684
2016	**167,023**	**1,701,002**	**1,868,025**	**48,659**	**1,819,366**

(1) Commercial landings were converted to heads-off weight by using these conversion factors: South Atlantic and Gulf, 0.629; and New England, Pacific and other, 0.57.

(2) Imports were converted to heads-off weight by using these conversion factors: breaded, 0.63; shell-on, 1.00; peeled raw, 1.28; canned, 2.52; and other, 2.40.

(3) Exports were converted to heads-off weight by using these conversion factors: domestic fresh and frozen, 1.18; canned, 2.02; other, 2.40; foreign--fresh and frozen, 1.00; canned, 2.52; and other, 2.40.



U.S. SUPPLY OF FISH MEAL, 2007-2016 (product weight)

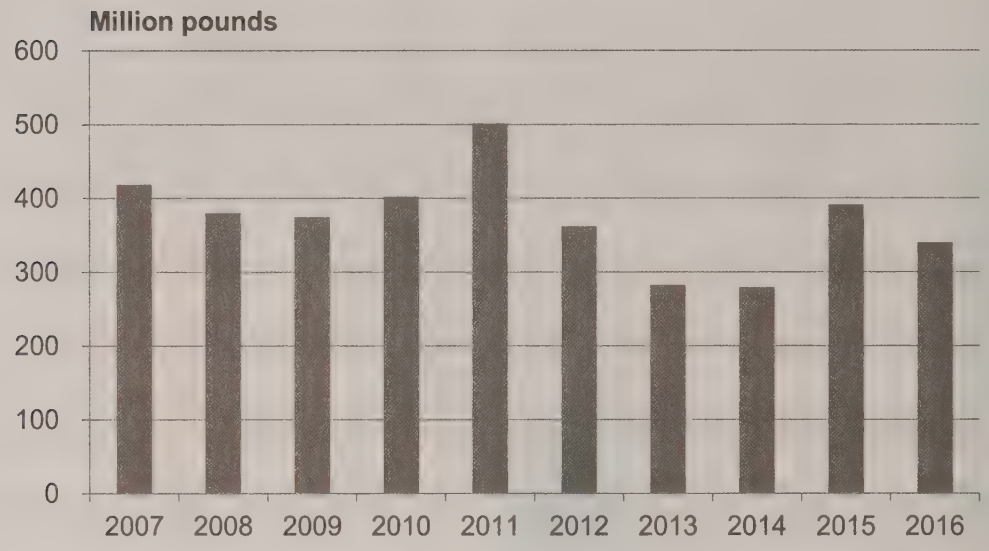
Year	U.S. Production (1)	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	563,221	87,364	650,585	231,388	419,197
2008	492,828	84,042	576,870	196,483	380,387
2009	472,805	76,731	549,536	174,613	374,923
2010	487,692	86,251	573,943	171,240	402,702
2011	620,823	75,858	696,681	195,017	501,664
2012	585,565	95,532	681,097	318,803	362,294
2013	508,056	105,192	613,248	330,280	282,969
2014	515,000	117,653	632,653	353,325	279,328
2015	610,362	109,117	719,479	327,701	391,778
2016	**559,132**	**120,517**	**679,649**	**339,881**	**339,768**

(1) Includes shellfish meal.

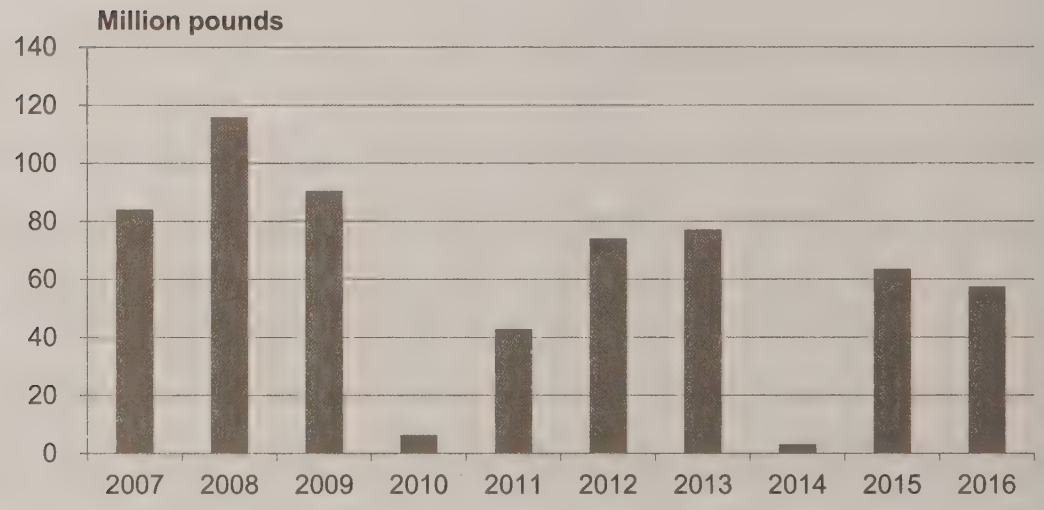
U.S. SUPPLY OF FISH OILS, 2007-2016 (product weight)

Year	U.S. Production	Imports	Total	Exports	Total Supply
	Thousand pounds				
2007	152,205	55,144	207,349	123,193	84,156
2008	190,023	53,779	243,802	127,843	115,959
2009	168,157	34,341	202,498	111,938	90,560
2010	136,362	45,061	181,423	174,985	6,437
2011	143,171	48,880	192,051	149,071	42,981
2012	115,090	52,055	167,145	92,983	74,162
2013	175,876	53,040	228,916	151,650	77,266
2014	139,005	41,354	180,359	177,232	3,127
2015	139,951	44,780	184,731	121,077	63,654
2016	**177,459**	**46,749**	**224,208**	**166,595**	**57,613**

U.S. Supply of Fish Meal, 2007-2016



U.S. Supply of Fish Oils, 2007-2016



Per Capita Consumption

The NMFS calculation of per capita consumption is based on a "disappearance" model. The total U.S. supply of imports and landings is converted to edible weight; decreases in supply, such as exports and industrial uses, are subtracted. The remaining total is divided by the U.S. population to estimate per capita consumption. Data for the model are derived primarily from secondary sources and are subject to incomplete reporting. Changes in source data, invalid model assumptions, or inaccurate or outdated conversion factors may each have a significant effect on the resulting calculation.

Estimated U.S. per capita consumption of fish and shellfish was 14.9 pounds (edible meat) in 2016. This total is a decrease of 0.6 pounds from the 15.5 pounds consumed in 2015, primarily due to small decreases in the consumption of fresh and frozen seafood and canned seafood. This overall decrease follows three years of increases in total consumption. The current level of fresh and frozen consumption of 11.3 pounds is a 0.2 pound decrease from the 2015 figure but is still higher than most recent years. The decrease in consumption of canned seafood products was driven by a decrease in canned salmon production in 2016. The model used to calculate consumption does not take into account inventories of products on hand at the beginning and end of the year, so all production is assumed to be consumed in the year it is produced. Because the primary salmon that is canned, pink salmon, generally has a large harvest every other year, small fluctuations in the consumption of canned products will result. The pink salmon harvest was particularly small in 2016 leading to a low consumption figure. It is reasonable to assume that some salmon canned in 2015 was actually consumed in 2016. It may be better to combine consecutive years to derive a more realistic figure of canned salmon consumption.

Of the per capita consumption of fresh and frozen products, fresh and frozen finfish accounted for 6.0 pounds, while fresh and frozen shellfish consumption was 5.3 pounds per capita. Consumption of canned fishery products was 3.3 pounds per capita in 2016, down 0.4 pounds from 2015. Cured fish accounted for 0.3 pounds per capita, the same as in previous years.

NOAA calculates the percent of edible seafood consumption that is made up of imports by converting all imports, exports, domestic landings, and domestic processing into a common, standard edible meat weight. Numerous conversion factors are used to calculate this edible meat weight standard, and the accuracy and variability of these factors are likely to effect the overall calculation. In addition, this figure may include a substantial amount of domestic catch that was exported for further processing and returned to the United States as an import in a processed form. This measure has been rising in recent years and reflects the increase in imported seafood. Since 2010 the number has been greater than 85 percent each year and the corresponding figure for 2016 is 95 percent. However, NOAA Fisheries believes that the existing model may overestimate this percentage. Therefore, while seafood imports are rising, the exact percentage of consumption from imports is difficult to know. We plan to investigate better ways to report consumption and indicate the Nation's dependence on imported seafood.

PER CAPITA USE

Per capita use is based on the supply of fishery products, both edible and nonedible (industrial), on a round-weight equivalent basis without considering beginning or ending stocks, defense purchases, or exports. The per capita use of all edible and industrial fishery products in 2016 was 66.5 pounds, down 0.1 pounds compared with 2015.

WORLD CONSUMPTION

The FAO calculation for apparent consumption is also based on a disappearance model, but with slightly different assumptions and based on a round-weight standard. The 3-year average considers a country's landings, imports, and exports. The average data from 2011 to 2013, and 2012 population figures, indicate that the U.S. now ranks as the second largest consumer of seafood in the world after China.

Annual per capita consumption of seafood products represents the pounds of edible meat consumed from domestically caught and imported fish and shellfish adjusted for exports, divided by the civilian resident population of the United States as of July 1 of each year.

U.S. ANNUAL PER CAPITA CONSUMPTION OF COMMERCIAL FISH AND SHELLFISH, 1910-2016

Year	Civilian Resident Population July 1 (1)	Per Capita Consumption			
		Fresh and Frozen (2)	Canned (3)	Cured (4)	Total
	Million persons	--------Pounds, edible meat--------			
1910	92.2	4.5	2.8	3.9	11.2
1920	106.5	6.3	3.2	2.3	11.8
1930	122.9	5.8	3.4	1.0	10.2
1940	132.1	5.7	4.6	0.7	11.0
1950	150.8	6.3	4.9	0.6	11.8
1960	178.1	5.7	4.0	0.6	10.3
1970	201.9	6.9	4.5	0.4	11.8
1980	225.6	7.9	4.3	0.3	12.5
1990	247.8	9.6	5.1	0.3	15.0
1991	250.5	9.7	4.9	0.3	14.9
1992	253.5	9.9	4.6	0.3	14.8
1993	256.4	10.2	4.5	0.3	15.0
1994	259.2	10.4	4.5	0.3	15.2
1995	261.4	10.0	4.7	0.3	15.0
1996	264.0	10.0	4.5	0.3	14.8
1997	266.4	9.9	4.4	0.3	14.6
1998	269.1	10.2	4.4	0.3	14.9
1999	271.5	10.4	4.7	0.3	15.4
2000	280.9	10.2	4.7	0.3	15.2
2001	283.6	10.3	4.2	0.3	14.8
2002	287.1	11.0	4.3	0.3	15.6
2003 (5)	289.6	11.4	4.6	0.3	16.3
2004	292.4	11.8	4.5	0.3	*16.6
2005	295.3	11.6	4.3	0.3	16.2
2006	298.2	*12.3	3.9	0.3	16.5
2007	300.5	12.1	3.9	0.3	16.3
2008	302.9	11.8	3.9	0.3	16.0
2009	305.8	12.0	3.7	0.3	16.0
2010	308.4	11.6	3.9	0.3	15.8
2011	310.4	10.9	3.8	0.3	15.0
2012	312.7	10.5	3.6	0.3	14.4
2013	314.9	10.5	3.7	0.3	14.5
2014	317.6	10.9	3.4	0.3	14.6
2015	320.2	11.5	3.7	0.3	15.5
2016	**321.9**	**11.3**	**3.3**	**0.3**	**14.9**

(1) Resident population is used for 1910 and 1920 and civilian resident population is used since 1930.
(2) Fresh and frozen fish consumption for 1910 and 1920 is estimated. Beginning in 1973, data include consumption of cultivated catfish.
(3) Canned fish consumption for 1920 is estimated. Beginning in 1921, it is based on production reports, packer stocks, and foreign trade statistics for individual years
(4) Cured fish consumption for 1910 and 1920 is estimated.
(5) The use of beginning and ending inventories was discontinued as of 2003.
*Record years: Fresh & Frozen -- 12.3,2006; Canned--5.8, 1936; Cured--4.0, 1909.

U.S. ANNUAL PER CAPITA CONSUMPTION OF CANNED FISHERY PRODUCTS, 1985-2016

Year	Salmon	Sardines	Tuna	Shellfish	Other	Total
	Pounds					
1985	0.5	0.3	3.3	0.5	0.4	5.0
1986	0.5	0.3	3.6	0.5	0.5	5.4
1987	0.4	0.3	3.5	0.5	0.5	5.2
1988	0.3	0.3	3.6	0.4	0.3	4.9
1989	0.3	0.3	3.9	0.4	0.2	5.1
1990	**0.4**	**0.3**	**3.7**	**0.3**	**0.4**	**5.1**
1991	0.5	0.2	3.6	0.4	0.2	4.9
1992	0.5	0.2	3.5	0.3	0.1	4.6
1993	0.4	0.2	3.5	0.3	0.1	4.5
1994	0.4	0.2	3.3	0.3	0.3	4.5
1995	0.5	0.2	3.4	0.3	0.3	4.7
1996	0.5	0.2	3.2	0.3	0.3	4.5
1997	0.4	0.2	3.1	0.3	0.4	4.4
1998	0.3	0.2	3.4	0.3	0.2	4.4
1999	0.3	0.2	3.5	0.4	0.3	4.7
2000	**0.3**	**0.2**	**3.5**	**0.3**	**0.4**	**4.7**
2001	0.4	0.2	2.9	0.3	0.4	4.2
2002	0.5	0.1	3.1	0.3	0.3	4.3
2003	0.4	0.1	3.4	0.4	0.3	4.6
2004	0.3	0.1	3.3	0.4	0.4	4.5
2005	0.4	0.1	3.1	0.4	0.3	4.3
2006	0.2	0.2	2.9	0.4	0.2	3.9
2007	0.3	0.2	2.7	0.4	0.3	3.9
2008	0.1	0.2	2.8	0.4	0.4	3.9
2009	0.2	0.2	2.5	0.4	0.4	3.7
2010	**0.2**	**0.2**	**2.7**	**0.4**	**0.4**	**3.9**
2011	0.2	0.2	2.6	0.4	0.4	3.8
2012	0.2	0.2	2.4	0.4	0.4	3.6
2013	0.4	0.2	2.3	0.4	0.4	3.7
2014	0.1	0.2	2.3	0.4	0.4	3.4
2015	0.3	0.2	2.2	0.5	0.5	3.7
2016	**0.0**	**0.2**	**2.1**	**0.5**	**0.5**	**3.3**

U.S. ANNUAL PER CAPITA CONSUMPTION OF CERTAIN FISHERY ITEMS, 1985-2016

Year	Fillets and Steaks (1)	Sticks and Portions	Shrimp, All Preparations
	Pounds (2)		
1985	3.2	1.8	2.0
1986	3.4	1.8	2.2
1987	3.6	1.7	2.4
1988	3.2	1.5	2.4
1989	3.1	1.5	2.3
1990	**3.1**	**1.5**	**2.2**
1991	3.0	1.2	2.4
1992	2.9	0.9	2.5
1993	2.9	1.0	2.5
1994	3.1	0.9	2.6
1995	2.9	1.2	2.5
1996	3.0	1.0	2.5
1997	3.0	1.0	2.7
1998	3.2	0.9	2.8
1999	3.2	1.0	3.0
2000	**3.6**	**0.9**	**3.2**
2001	3.7	0.8	3.4
2002	4.1	0.8	3.7
2003	4.3	0.7	4.0
2004	4.6	0.7	4.2
2005	5.0	0.9	4.1
2006	*5.2	0.9	*4.4
2007	5.0	0.9	4.1
2008	4.8	1.0	4.1
2009	4.6	0.7	4.1
2010	**5.0**	**0.9**	**4.0**
2011	5.0	0.9	4.2
2012	5.6	0.7	3.8
2013	5.9	0.6	3.6
2014	5.9	0.6	4.0
2015	5.9	0.7	4.0
2016	**5.8**	**0.5**	**4.1**

(1) Data include groundfish and other species. Data do not include blocks, but fillets could be made into blocks from which sticks and portions could be produced.

(2) Product weight of fillets and steaks, sticks and portions; edible (meat) weight of shrimp.

* Record year

PER CAPITA CONSUMPTION OF FISH AND SHELLFISH FOR HUMAN FOOD, BY REGION AND COUNTRY, 2011-2013 AVERAGE

Region and Country	Estimated Live Weight Equivalent	
	Kilograms	Pounds
North America:		
Bermuda	45.2	99.6
Canada	22.4	49.3
Greenland	86.4	190.5
Saint Pierre & Miquelon	73.0	160.9
United States	21.4	47.2
Caribbean:		
Anguilla	49.6	109.4
Antigua and Barbuda	56.0	123.5
Aruba	47.1	103.9
Bahamas	29.0	63.9
Barbados	39.5	87.0
British Virgin Islands	28.6	63.0
Cayman Islands	16.6	36.5
Cuba	5.5	12.2
Dominica	21.4	47.3
Dominican Republic	10.1	22.3
Grenada	28.8	63.4
Guadeloupe	21.2	46.7
Haiti	4.5	9.9
Jamaica	26.2	57.9
Martinique	12.2	27.0
Montserrat	33.7	74.2
Puerto Rico	0.4	0.8
Saint Kitts & Nevis	35.2	77.6
Saint Lucia	24.6	54.2
Saint Vincent	18.3	40.3
Trinidad & Tobago	24.1	53.2
Turks & Caicos	49.1	108.1
U.S. Virgin Islands	5.7	12.6
Latin America:		
Argentina	6.3	13.9
Belize	14.2	31.2
Bolivia	2.2	4.9
Brazil	9.6	21.2
Chile	13.7	30.2
Colombia	6.2	13.8
Costa Rica	13.1	28.9
Ecuador	8.5	18.6
El Salvador	7.0	15.5
Falkland Islands	42.4	93.5
French Guiana	16.3	36.0
Guatemala	2.5	5.4
Guyana	30.3	66.8
Honduras	4.0	8.7
Mexico	12.0	26.4
Nicaragua	5.4	11.9
Panama	13.8	30.4
Paraguay	3.9	8.5
Peru	21.4	47.2
Suriname	17.2	38.0
Uruguay	7.0	15.5
Venezuela	10.0	22.0
Europe:		
Albania	5.2	11.5
Armenia	3.7	8.1
Austria	14.0	30.8
Azerbaijan	2.4	5.4

continued

Region and Country	Estimated Live Weight Equivalent	
	Kilograms	Pounds
Belarus	15.4	34.0
Belgium	25.5	56.2
Bosnia-Herzegovina	4.5	10.0
Bulgaria	6.2	13.6
Croatia	19.1	42.1
Czech Republic	8.8	19.3
Denmark	23.0	50.8
Estonia	13.1	28.8
Faroe Islands	86.5	190.7
Finland	35.6	78.5
France	34.0	75.0
Georgia	8.1	17.9
Germany	13.5	29.8
Greece	19.1	42.2
Hungary	5.1	11.3
Iceland	91.9	202.6
Ireland	21.1	46.5
Italy	25.8	56.9
Kazakhstan	5.0	11.0
Kyrgyzstan	2.5	5.6
Latvia	23.4	51.7
Lithuania	30.5	67.3
Luxembourg	33.5	73.9
Macedonia	5.5	12.1
Malta	31.9	70.2
Moldova	13.3	29.2
Montenegro	11.6	25.6
Netherlands	22.6	49.8
Norway	52.8	116.3
Poland	10.2	22.5
Portugal	54.1	119.3
Romania	5.2	11.4
Russian Federation	23.0	50.8
Serbia	6.9	15.2
Slovakia	8.0	17.7
Slovenia	10.6	23.4
Spain	41.9	92.4
Sweden	31.3	69.1
Switzerland	17.6	38.8
Tajikistan	0.5	1.1
Turkmenistan	3.7	8.2
Ukraine	15.2	33.4
United Kingdom	20.5	45.1
Uzbekistan	0.7	1.6
Near East:		
Afghanistan	0.1	0.2
Bahrain	11.7	25.8
Cyprus	22.1	48.8
Egypt	22.2	49.0
Iran	9.6	21.1
Iraq	3.3	7.2
Israel	22.7	50.0
Jordan	6.5	14.3
Kuwait	14.5	31.9
Lebanon	11.3	24.8
Oman	27.6	60.9
Qatar	23.0	50.7
Saudi Arabia	12.6	27.8
Syria	2.8	6.1
Turkey	6.3	13.9
United Arab Emirates	25.0	55.2
Yemen	4.3	9.6

continued

PER CAPITA CONSUMPTION OF FISH AND SHELLFISH FOR HUMAN FOOD, BY REGION AND COUNTRY, 2011-2013 AVERAGE

Region and Country	Estimated Live Weight Equivalent	
	Kilograms	Pounds
Far East:		
Bangladesh	20.5	45.2
Bhutan	5.9	13.0
Brunei	42.0	92.6
Burma	57.9	127.7
Cambodia	40.9	90.1
China	36.1	79.5
China - Hong Kong	68.2	150.4
China - Macao	56.4	124.3
India	5.7	12.7
Indonesia	30.1	66.3
Japan	50.8	112.1
Laos	21.2	46.7
Malaysia	58.9	129.7
Maldives	188.2	414.9
Mongolia	0.9	2.0
Nepal	2.3	5.0
North Korea	10.2	22.6
Pakistan	1.9	4.2
Philippines	31.3	69.0
Singapore	49.8	109.9
South Korea	57.1	125.8
Sri Lanka	29.2	64.3
Taiwan	34.0	75.0
Thailand	26.7	58.9
Timor-Leste	6.4	14.1
Vietnam	35.0	77.2
Africa:		
Algeria	4.0	8.8
Angola	18.5	40.8
Benin	13.1	28.9
Botswana	4.0	8.8
Burkina Faso	6.9	15.1
Burundi	1.8	3.9
Cameroon	16.1	35.5
Cape Verde	11.1	24.6
Central African Republic	8.5	18.8
Chad	8.5	18.8
Comoros	15.9	35.1
Congo (Brazzaville)	25.0	55.1
Congo (Kinshasa)	5.3	11.8
Côte d'Ivoire	16.9	37.2
Djibouti	3.5	7.7
Equatorial Guinea	24.6	54.3
Eritrea	0.6	1.3
Ethiopia	0.3	0.7
Gabon	35.0	77.1
Gambia	23.3	51.3
Ghana	26.3	58.1
Guinea	10.5	23.2
Guinea-Bissau	1.6	3.6
Kenya	4.1	9.1
Lesotho	1.5	3.4
Liberia	4.3	9.5
Libya	20.8	45.9
Madagascar	4.8	10.6
Malawi	7.1	15.6
Mali	7.5	16.6
Mauritania	8.2	18.1
Mauritius	23.2	51.1
Morocco	16.6	36.6

continued

Region and Country	Estimated Live Weight Equivalent	
	Kilograms	Pounds
Mozambique	9.3	20.6
Namibia	12.4	27.4
Niger	3.0	6.5
Nigeria	14.0	30.8
Rwanda	4.3	9.6
Saint Helena	71.5	157.7
Sao Tome and Principe	29.3	64.7
Senegal	23.9	52.6
Seychelles	57.4	126.5
Sierra Leone	33.3	73.4
Somalia	3.1	6.7
South Africa	6.5	14.3
South Sudan	3.3	7.4
Sudan	1.7	3.7
Swaziland	1.9	4.2
Tanzania	6.6	14.5
Togo	11.6	25.6
Tunisia	13.4	29.5
Uganda	12.9	28.5
Zambia	8.1	18.0
Zimbabwe	3.1	6.7
Oceania:		
American Samoa	6.0	13.1
Australia	26.3	58.0
Cook Islands	59.0	130.1
Fiji	35.3	77.8
French Polynesia	48.1	106.0
Kiribati	76.1	167.8
Marshall Islands	18.2	40.0
Micronesia	48.5	106.9
Nauru	51.9	114.3
New Caledonia	27.9	61.5
New Zealand	25.0	55.2
Palau	59.8	131.8
Papua New Guinea	17.2	37.9
Samoa	48.4	106.8
Solomon Islands	36.0	79.5
Tonga	24.6	54.3
Tuvalu	48.3	106.4
Vanuatu	32.8	72.4
Wallis & Futuna	64.1	141.3
World	**19.4**	**42.8**

Note: Data are preliminary and refer to per capita consumption of fish, crustaceans and mollusks.

Source: Food and Agriculture Organization of the United Nations (FAO)

Per Capita Consumption

Per capita use of commercial fish and shellfish is based on the supply of fishery products, both edible and nonedible (industrial), on a round weight equivalent basis, without considering the beginning or ending stocks, defense purchases, or exports.

Per capita use figures are not comparable to per capita consumption data. Per capita consumption figures represent edible (for human use) meat-weight consumption rather than round-weight consumption. In addition, per capita consumption includes allowances for beginning and ending stocks and exports, whereas the use does not include such allowances.

Per capita use is derived by using total population including U.S. Armed Forces overseas; per capita consumption is derived by using civilian resident population.

U.S. ANNUAL PER CAPITA USE OF COMMERCIAL FISH AND SHELLFISH, 1970-2016 (1)

Year	Total Population Including Armed Forces Overseas July 1	U.S. Supply	Per Capita Use		
			Commercial Landings	Imports	Total
	Million persons	Million pounds	Pounds		
1970	205.1	11,474	24.0	31.9	55.9
1971	207.7	11,804	24.1	32.7	56.8
1972	209.9	13,849	22.9	43.1	66.0
1973	211.9	10,378	22.9	26.1	49.0
1974	213.9	9,875	23.2	23.0	46.2
1975	216.0	10,164	22.6	24.5	47.1
1976	218.0	11,593	24.7	28.5	53.2
1977	220.2	10,652	23.9	24.4	48.3
1978	222.6	11,509	27.1	24.6	51.7
1979	225.1	11,831	27.9	24.7	52.6
1980	227.7	11,357	28.5	21.4	49.9
1981	230.0	11,353	26.0	23.4	49.4
1982	232.2	12,011	27.4	24.3	51.7
1983	234.3	12,352	27.5	25.2	52.7
1984	236.3	12,552	27.3	25.8	53.1
1985	238.5	15,150	26.2	37.3	63.5
1986	240.7	14,368	25.1	34.6	59.7
1987	242.8	15,744	28.4	36.4	64.8
1988	245.0	14,628	29.3	30.4	59.7
1989	247.3	15,485	34.2	28.4	62.6
1990	249.9	16,349	37.6	27.8	65.4
1991	252.7	16,363	37.5	27.3	64.8
1992	255.5	16,106	37.7	25.3	63.0
1993	258.2	20,334	40.6	38.2	78.8
1994	260.7	19,309	40.1	34.0	74.1
1995	263.0	16,484	37.2	25.5	62.7
1996	265.3	16,474	36.1	26.0	62.1
1997	268.2	17,132	36.7	27.2	63.9
1998	270.6	16,897	34.0	28.5	62.5
1999	272.9	17,378	34.2	29.5	63.7
2000	282.3	17,338	32.1	29.3	61.4
2001	285.0	18,118	33.3	30.3	63.6
2002	288.4	19,028	32.6	33.4	66.0
2003	291.0	19,849	32.7	35.5	68.2
2004	293.9	20,412	32.8	36.5	69.3
2005	296.9	20,612	32.4	36.7	69.1
2006	299.8	20,960	31.6	38.3	69.9
2007	302.0	20,561	30.6	37.3	67.9
2008	304.5	19,201	27.3	35.9	63.2
2009	307.4	18,900	26.1	35.4	61.5
2010	310.1	19,748	26.5	37.1	63.6
2011	312.0	21,106	31.6	36.1	67.7
2012	314.3	20,757	30.7	35.4	66.1
2013	316.4	20,998	31.2	35.2	66.4
2014	318.9	21,050	29.7	36.3	66.0
2015	321.4	21,426	30.2	36.4	66.6
2016	**323.3**	**21,508**	**29.6**	**36.9**	**66.5**

(1) Data include U.S. commercial landings and imports of both edible and nonedible (industrial) fishery products on a round weight basis. "Total supply" is not adjusted for beginning and ending stocks, defense purchases, or exports.

Industry Information

SUMMARY OF 2016 VALUE ADDED, MARGINS, AND CONSUMER EXPENDITURES FOR COMMERCIAL MARINE FISHERY PRODUCTS IN THE UNITED STATES (1)

Sector or Type of Activity	Purchase of Fishery Inputs	Mark-up of fishery inputs	Total Mark-Up Within Sector	Value Added as Percent of Total Markup	Value Added Within Sector	Value of Sales by Sector	Value Added Contribution	Offshore Fleet & Exported Fishery Products
	Thousand Dollars	Percentage of Fishery Inputs	Thousand Dollars	Percentage	Thousand Dollars	Thousand Dollars	Percentage of GNP Contribution	Thousand Dollars
Domestic Harvest:								
Edible	-	100%	5,131,904	63%	3,253,229	5,106,376	7%	-
Industrial	-	100%	179,791	58%	105,155	179,791	0%	-
Harvest not landed in U.S	-	100%	276,910	69%	192,104	276,910	0%	276,910
Imports, Unprocessed	6,789,547	-	-	-	-	6,789,547	-	-
Exports, Unprocessed	-	-	-	-	-	-	-	1,873,058
Primary Wholesale and Processing	10,202,656	80%	8,154,970	60%	4,933,744	18,357,627	11%	-
Imports, Processed	12,924,795	-	-	-	-	12,924,795	-	-
Exports, Processed	-	-	-	-	-	-	-	3,729,152
Secondary Wholesale and Processing:								
Edible	27,506,693	63%	17,249,474	28%	4,837,363	44,756,167	10%	-
Industrial	46,577	63%	29,208	28%	8,191	75,785	0%	-
Retail Trade from Food Service	22,457,534	182%	40,963,912	70%	28,577,704	63,421,446	61%	-
Retail Trade from Stores	22,298,633	33%	7,452,712	64%	4,786,991	29,751,345	10%	-
TOTAL DOCKSIDE VALUE OF EXPORTED FISHERY PRODUCTS (& HARVEST NOT LANDED IN U.S. PORTS):								**5,879,120**
TOTAL U.S. VALUE ADDED ACTIVITY:					**46,694,481**		**100**	
CONSUMERS EXPENDITURES (& WHOLESALE PURCHASES OF INDUSTRIAL PRODUCTS) FOR FISHERY PRODUCTS:						**93,248,576**		

(1) Includes industrial products and landings by U.S.-flag vessels at U.S. ports, foreign ports, and transfers to internal water processing vessels.

Note: The table reports the contribution of commercial marine fishing to the national economy as measured by margin, value added, and sales. These measures are consistent with the Bureau of the Census definitions.

Margin or mark-up is the difference between the price paid for the product by the consumer or wholesale purchaser and the dockside or wholesale value for an equivalent weight of the product. It is assumed that fishermen catch their fish without paying purchase price and therefore the entire dockside or ex-vessel price is considered margin. Value added is a measure of the factors added to the total worth of a product at each stage of the production process. It is defined as the gross receipts of firms minus the cost of purchased goods and services needed to fabricate the products. Gross National Product (GNP) is equal to the sum of the value added of all economic entities in the economy. Value added within a sector represents that sector's contribution to GNP.

Value added includes wages, salaries, interest, depreciation, rent, taxes and profit. Consumer expenditures are the final retail value of seafood products sold through stores and food service outlets plus secondary wholesale and processing of industrial products.

The Indexes of Ex-Vessel Prices table (following page) presents the annual dockside price of fish and shellfish sold by fishing vessels as a percentage of the 2009 dockside price for the same species or species group. The ex-vessel price for each year was obtained by dividing the total ex-vessel value for each species or group by its total quantity as reported in the U.S. commercial landings tables on pages 2 through 5. The index for each species or group was obtained using the following formula:

$$\text{Index} = \left(\frac{\textit{Current Price}}{\textit{2009 Price}} \right) \times 100$$

For example, a species of fish that sold for $0.75 a pound in 2011 and $1.00 a pound in 2009 would have an index of 75 in 2011, which means that the 2011 price was 75 percent of the 2009 price or 25 percent less than the 2009 price. If the price of the same species was $1.07 in 2013, the index in 2013 would be 107, which means that the price had increased by 7 percent between 2009 and 2013.

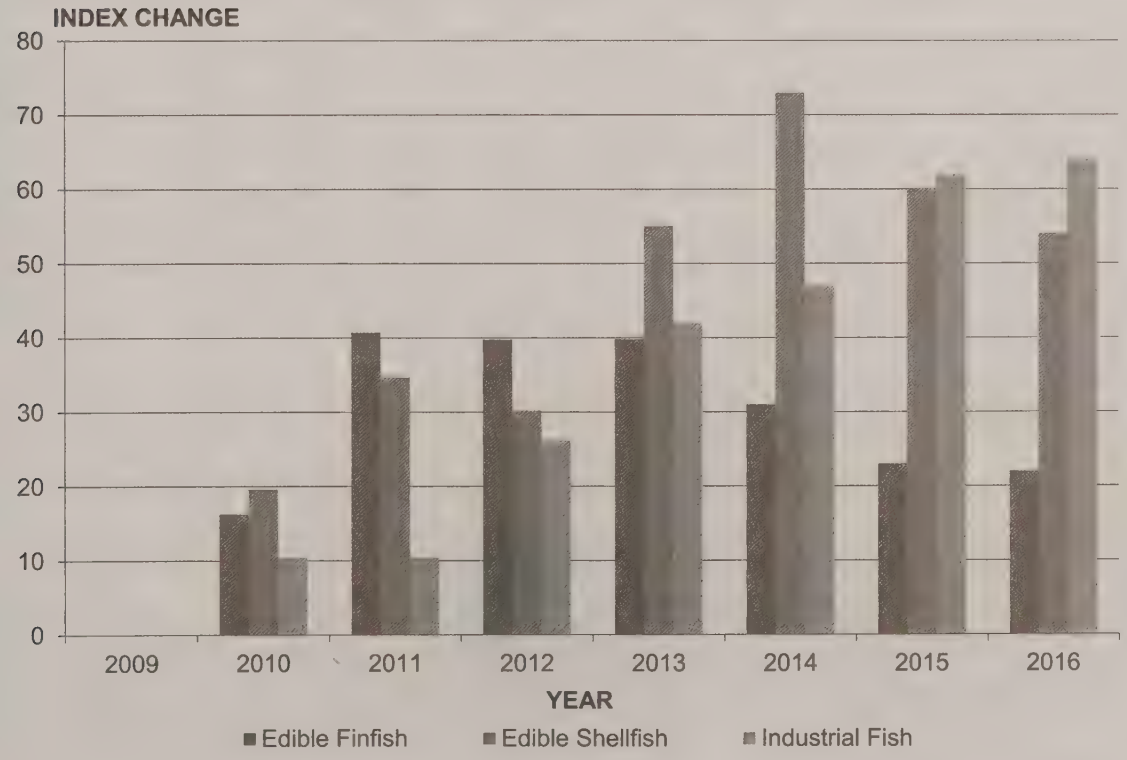
The figure below presents the percentage changes in the ex-vessel price index since 2009 for each of the following categories: edible finfish, edible shellfish, and industrial fish. The index for each category was obtained using the following formula:

$$\text{Index} = \left(\frac{\text{Sum of Current Prices by Species} \times \text{2009 Quantities by Species)}}{\text{2009 Ex-Vessel Value}} \right) \times 100$$

The change in the price index for a category is the difference between the index for that year and 100, where 100 is the index for 2009.

The year 2009 is selected as a base year to match the GDP Implicit Price Deflator determined by the U.S. Department of Commerce, Bureau of Economic Analysis.

Changes in Ex-Vessel Price Index, 2009-2016
(Change Relative to Base Year = 2009)



INDEXES OF EX-VESSEL PRICES FOR FISH AND SHELLFISH, BY YEARS, 2009-2016 (2009=100)

Species	2009	2010	2011	2012	2013	2014	2015	2016
Groundfish, et al:								
Cod	100	101	111	92	78	73	121	80
Haddock	100	94	122	170	137	107	100	113
Pollock:								
Atlantic	100	138	127	146	168	177	184	184
Alaska	100	102	91	84	95	90	95	88
Flounders	100	58	103	126	60	106	146	137
Total groundfish, et al.	100	95	128	111	99	103	118	108
Halibut	100	157	213	191	167	212	208	216
Sea herring	100	100	78	100	89	75	74	102
Salmon:								
Chinook	100	131	137	155	170	150	150	188
Chum	100	150	181	157	124	144	111	130
Coho	100	121	126	136	142	125	80	129
Pink	100	151	191	191	177	123	90	101
Sockeye	100	138	150	124	200	175	86	109
Total salmon	100	140	159	143	180	156	93	117
Swordfish	100	128	135	137	138	135	123	135
Tuna:								
Albacore	100	110	170	148	144	120	120	118
Bluefin	100	196	195	229	189	104	104	132
Skipjack	100	128	100	212	222	153	153	115
Yellowfin	100	99	100	159	183	125	125	107
Total tuna	100	122	126	196	194	144	144	121
Total edible finfish	**100**	**116**	**141**	**140**	**140**	**131**	**123**	**122**
Clams:								
Hard	100	137	99	91	101	86	106	99
Ocean Quahog	100	104	111	117	117	121	126	136
Soft	100	91	89	111	122	137	217	184
Surf	100	102	102	109	107	107	111	112
Total clams	100	133	134	117	121	126	119	133
Crabs:								
Blue	100	119	94	107	148	161	154	141
Dungeness	100	103	133	163	139	185	226	168
King	100	132	169	144	139	133	146	186
Snow	100	83	158	139	148	157	127	73
Total crabs	100	102	131	136	172	168	177	151
American Lobster	100	115	113	96	106	122	134	134
Oysters	100	109	120	122	126	183	183	184
Scallops:								
Bay	100	146	164	153	165	291	309	247
Sea	100	120	150	148	173	190	186	182
Total scallops	100	120	150	148	173	191	187	182
Shrimp:								
Gulf and South Atlantic	100	145	150	144	184	229	135	151
Other	100	97	118	126	122	130	161	175
Total shrimp	100	142	148	143	181	224	136	152
Total edible shellfish	**100**	**120**	**135**	**130**	**155**	**173**	**160**	**154**
Total edible fish and shellfish	**100**	**118**	**137**	**135**	**148**	**154**	**143**	**139**
Industrial fish, Menhaden	100	110	110	126	142	147	162	164
All fish and shellfish	**100**	**118**	**137**	**134**	**148**	**153**	**143**	**140**

PROCESSORS AND WHOLESALERS: PLANTS AND EMPLOYMENT, 2015

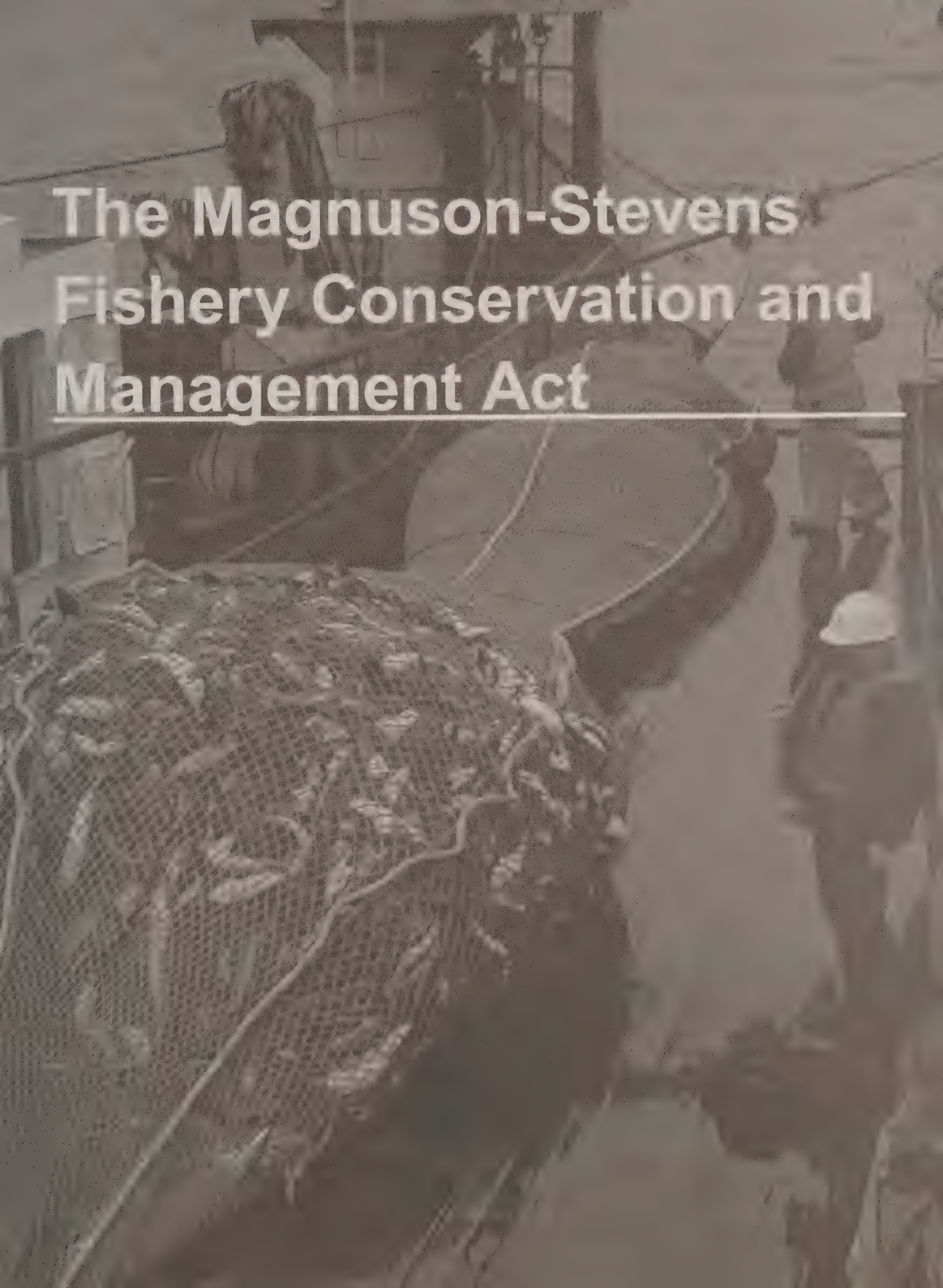
Area and State	Processing (1)		Wholesale (2)		Total	
	Plants	Employment	Plants	Employment	Plants	Employment
	Number					
New England:						
Maine	38	847	172	1,278	210	2,125
New Hampshire	9	216	9	91	18	307
Massachusetts	52	2,292	149	2,263	201	4,555
Rhode Island	9	(3)	35	(3)	44	(3)
Connecticut	3	74	18	195	21	269
Total	**111**	**3,429**	**383**	**3,827**	**494**	**7,256**
Middle Atlantic:						
New York	20	443	274	2,102	294	2,545
New Jersey	16	618	80	855	96	1,473
Pennsylvania	4	87	32	659	36	746
Delaware	3	(3)	5	17	8	17
District of Columbia	-	-	2	(3)	2	(3)
Maryland	16	338	46	543	62	881
Virginia	35	1,450	63	491	98	1,941
Total	**94**	**2,936**	**502**	**4,667**	**596**	**7,603**
South Atlantic:						
North Carolina	30	665	64	582	94	1,247
South Carolina	3	(3)	22	162	25	162
Georgia	6	702	34	706	40	1,408
Florida	43	1,572	317	2,706	360	4,278
Total	**82**	**2,939**	**437**	**4,156**	**519**	**7,095**
Gulf:						
Alabama	33	1,376	14	263	47	1,639
Mississippi	23	2,331	19	96	42	2,427
Louisiana	60	1,599	98	626	158	2,225
Texas	46	1,647	130	1,266	176	2,913
Total	**162**	**6,953**	**261**	**2,251**	**423**	**9,204**
Pacific:						
Alaska	151	10,156	11	35	162	10,191
Washington	96	6,463	141	1,496	237	7,959
Oregon	28	1,113	23	479	51	1,592
California	43	982	372	4,701	415	5,683
Hawaii	2	(3)	36	650	38	650
Total	**320**	**18,714**	**583**	**7,361**	**903**	**26,075**
Inland States or Other Areas (4): Total	**61**	**1,653**	**243**	**2,965**	**304**	**4,618**
Grand Total	**830**	**36,624**	**2,409**	**25,227**	**3,239**	**61,851**

(1) Data are based on North American Industry Classification System (NAICS) 3117 as reported to the Bureau of Labor Statistics.
(2) Data are based on North American Industry Classification System (NAICS) 42446 as reported to the Bureau of Labor Statistics.
(3) Included with Inland States.
(4) Includes Puerto Rico and Virgin Islands

PROCESSORS AND WHOLESALERS: PLANTS AND EMPLOYMENT, 2016

Area and State	Processing (1)		Wholesale (2)		Total	
	Plants	Employment	Plants	Employment	Plants	Employment
	Number					
New England:						
Maine	37	837	180	1,339	217	2,176
New Hampshire	8	201	10	92	18	293
Massachusetts	50	2,286	150	2,304	200	4,590
Rhode Island	9	(3)	30	(3)	39	(3)
Connecticut	4	78	18	197	22	275
Total	**108**	**3,399**	**388**	**3,929**	**496**	**7,334**
Middle Atlantic:						
New York	21	419	265	2,123	286	2,542
New Jersey	17	612	83	966	100	1,578
Pennsylvania	5	83	32	709	37	792
Delaware	3	(3)	6	19	9	16
District of Columbia	-	-	-	-	-	(3)
Maryland	18	371	44	729	62	1,100
Virginia	33	1,448	65	519	98	1,967
Total	**97**	**2,930**	**495**	**5,065**	**592**	**7,995**
South Atlantic:						
North Carolina	29	702	62	627	91	1,329
South Carolina	3	(3)	23	170	26	167
Georgia	6	769	37	793	43	1,562
Florida	41	1,631	326	2,662	367	4,293
Total	**79**	**3,099**	**448**	**4,252**	**527**	**7,351**
Gulf:						
Alabama	34	1,423	13	237	47	1,660
Mississippi	23	2,425	20	129	43	2,554
Louisiana	60	1,626	105	699	165	2,325
Texas	52	1,611	137	1,334	189	2,945
Total	**169**	**7,085**	**275**	**2,399**	**444**	**9,484**
Pacific:						
Alaska	149	9,750	11	38	160	9,788
Washington	89	6,326	145	1,598	234	7,924
Oregon	31	1,141	26	525	57	1,666
California	42	1,061	385	4,822	427	5,883
Hawaii	2	(3)	34	688	36	685
Total	**313**	**18,275**	**601**	**7,671**	**914**	**25,946**
Inland States or Other Areas (4): Total	**66**	**1,642**	**244**	**3,100**	**310**	**4,742**
Grand Total	**832**	**36,430**	**2,451**	**26,416**	**3,283**	**62,846**

(1) Data are based on North American Industry Classification System (NAICS) 3117 as reported to the Bureau of Labor Statistics.
(2) Data are based on North American Industry Classification System (NAICS) 42446 as reported to the Bureau of Labor Statistics.
(3) Included with Inland States.
(4) Includes Puerto Rico and Virgin Islands



The Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), amended on January 12, 2007 by Public Law 109-479, provides for the conservation and management of fishery resources within the U.S. Exclusive Economic Zone (EEZ). It also provides for fishery management authority over continental shelf resources and anadromous species beyond the EEZ, except when they are found within a foreign nation's territorial sea or fishery conservation zone (or equivalent).

The EEZ extends from the seaward boundary of each of the coastal States (generally 3 nautical miles from shore) to 200 nautical miles from shore. The seaward boundaries of Texas, Puerto Rico, and the Gulf coast of Florida are 3 marine leagues (9 nautical miles). The EEZ encompasses approximately 3.36 million square nautical miles.

GOVERNING INTERNATIONAL FISHERY AGREEMENT

Under the Magnuson-Stevens Act, the Secretary of State, in cooperation with the Secretary of Commerce, negotiates Governing International Fishery Agreements (GIFAs) with foreign nations requesting to fish within the EEZ. After a GIFA is signed, it is transmitted by the President to the Congress for ratification.

FOREIGN FISHING PERMITS

Title II of the Magnuson-Stevens Act governs foreign fishing in U.S. waters. As U.S. fishing capacity has grown foreign participation has diminished in directed fisheries, as well as in foreign joint ventures in which U.S. vessels delivered U.S. harvested fish to permitted foreign vessels in the EEZ. The last directed fishing by foreign vessels occurred in 2001 when a small quantity of Atlantic herring was harvested by foreign vessels. The displacement of directed foreign fishing effort in the EEZ marked the achievement of one of the objectives of the Magnuson-Stevens Act: the development of the U.S. fishing industry to take, what were in 1976, underutilized species.

NMFS continues to maintain certain regulations pertaining to foreign fishing should there be a situation in the future in which allowing limited foreign fishing in an underutilized fishery would be advantageous to the U.S. fishing industry.

FMPS AND PMPS

Under the Magnuson-Stevens Act, eight Regional Fishery Management Councils are charged with preparing Fishery Management Plans (FMPs) for the fisheries needing management within their areas of authority. After the Councils prepare FMPs that cover domestic and foreign fishing efforts, the FMPs are submitted to the Secretary of Commerce (Secretary) for approval and implementation. The Department, through NMFS Office of Law Enforcement and the U.S. Coast Guard, is responsible for enforcing the law and regulations.

The Secretary, when notified by the Secretary of State that any foreign nation has submitted an application under section 204(b) of the MSA, shall prepare a preliminary fishery management plan (PMP) if the Secretary determines that no fishery management plan for that fishery will be prepared and implemented. Under Section 304(c) of the MSA the Secretary may also prepare an FMP if a Council fails to develop one. In this latter case, the Secretary's FMP covers domestic and foreign fishing.

The Secretary shall prepare FMPs for highly migratory species that are within the geographical area of authority of more than one of the following Councils: New England, Mid-Atlantic, South Atlantic, Gulf, and Caribbean. The Atlantic HMS fisheries are managed by the Secretary under the dual authority of the Magnuson-Stevens Act and the Atlantic Tunas Convention Act (ATCA). Atlantic tunas, Atlantic billfish, and North Atlantic swordfish are managed under the authority of both ATCA and the Magnuson-Stevens Act. South Atlantic swordfish are managed under the sole authority of ATCA. Atlantic sharks in the HMS management unit are managed under the authority of the Magnuson-Stevens Act.

Under section 304 of the Magnuson-Stevens Act, all Council-prepared FMPs must be reviewed for approval by the Secretary of Commerce. Approved FMPs are implemented by Federal regulations under section 305 of the Act. As of December 31, 2016, there are 46 FMPs in effect. Of these, one is a Secretarial FMP for Atlantic highly migratory species. The FMPs are listed next, under the responsible Council. FMPs may be amended by the Council and the amendments are submitted for approval under the same Secretarial review process as new FMPs. Most FMPs have been amended since initial implementation.

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

1. Northeast Multispecies FMP
2. Northeast Skate Complex FMP
3. Deep-Sea Red Crab FMP
4. Atlantic Herring FMP
5. Atlantic Sea Scallop FMP
6. Monkfish FMP (joint with MAFMC)
7. Atlantic Salmon FMP

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

1. Spiny Dogfish FMP (joint with NEFMC)
2. Summer Flounder, Scup, and Black Sea Bass FMP
3. Atlantic Surfclam and Ocean Quahog FMP
4. Atlantic Mackerel, Squid, and Butterfish FMP
5. Bluefish FMP
6. Tilefish FMP

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

1. Pelagic Sargassum Habitat of the South Atlantic Region FMP
2. Snapper-Grouper Fishery of the South Atlantic Region FMP
3. Dolphin and Wahoo Fishery of the Atlantic FMP
4. Shrimp Fishery of the South Atlantic Region FMP
5. Golden Crab Fishery of the South Atlantic Region FMP
6. Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region FMP

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

1. Coastal Migratory Pelagics of the Gulf of Mexico and South Atlantic FMP (joint w/ SAFMC.)
2. Coral and Coral Reefs of the Gulf of Mexico FMP
3. Red Drum Fishery of the Gulf of Mexico FMP
4. Shrimp Fishery of the Gulf of Mexico FMP
5. Spiny Lobster in the Gulf of Mexico and South Atlantic FMP (joint w/SAFMC)
6. Reef Fish Resources of the Gulf of Mexico FMP
7. Regulating Offshore Marine Aquaculture in the Gulf of Mexico FMP

CARIBBEAN FISHERY MANAGEMENT COUNCIL

1. Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands FMP
2. Corals and Reef-Associated Plants and Invertebrates of Puerto Rico and the United States Virgin Islands FMP
3. Queen Conch Resources of Puerto Rico and the United States Virgin Islands FMP
4. Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands FMP

PACIFIC FISHERY MANAGEMENT COUNCIL

1. Pacific Coast Groundfish FMP
2. Pacific Coast Salmon FMP
3. Coastal Pelagic Species FMP
4. U.S. West Coast Fisheries for Highly Migratory Species FMP

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

1. Groundfish of the Bering Sea and Aleutian Islands FMP
2. Groundfish of the Gulf of Alaska FMP
3. Bering Sea and Aleutian Islands King and Tanner Crab FMP
4. Salmon Fisheries in the EEZ off the Coast of Alaska FMP
5. Scallop Fishery off Alaska FMP
6. Fish Resources of the Arctic Management Area FMP

WESTERN PACIFIC FISHERY MANAGEMENT COUNCIL

1. American Samoa Archipelago Ecosystem FEP
2. Pacific Pelagic Fisheries of the Western Pacific Region Ecosystem FEP
3. Hawaii Archipelago Ecosystem FEP
4. Mariana Archipelago Ecosystem FEP
5. Pacific Remote Island Areas Ecosystem FEP

HIGHLY MIGRATORY SPECIES PLANS

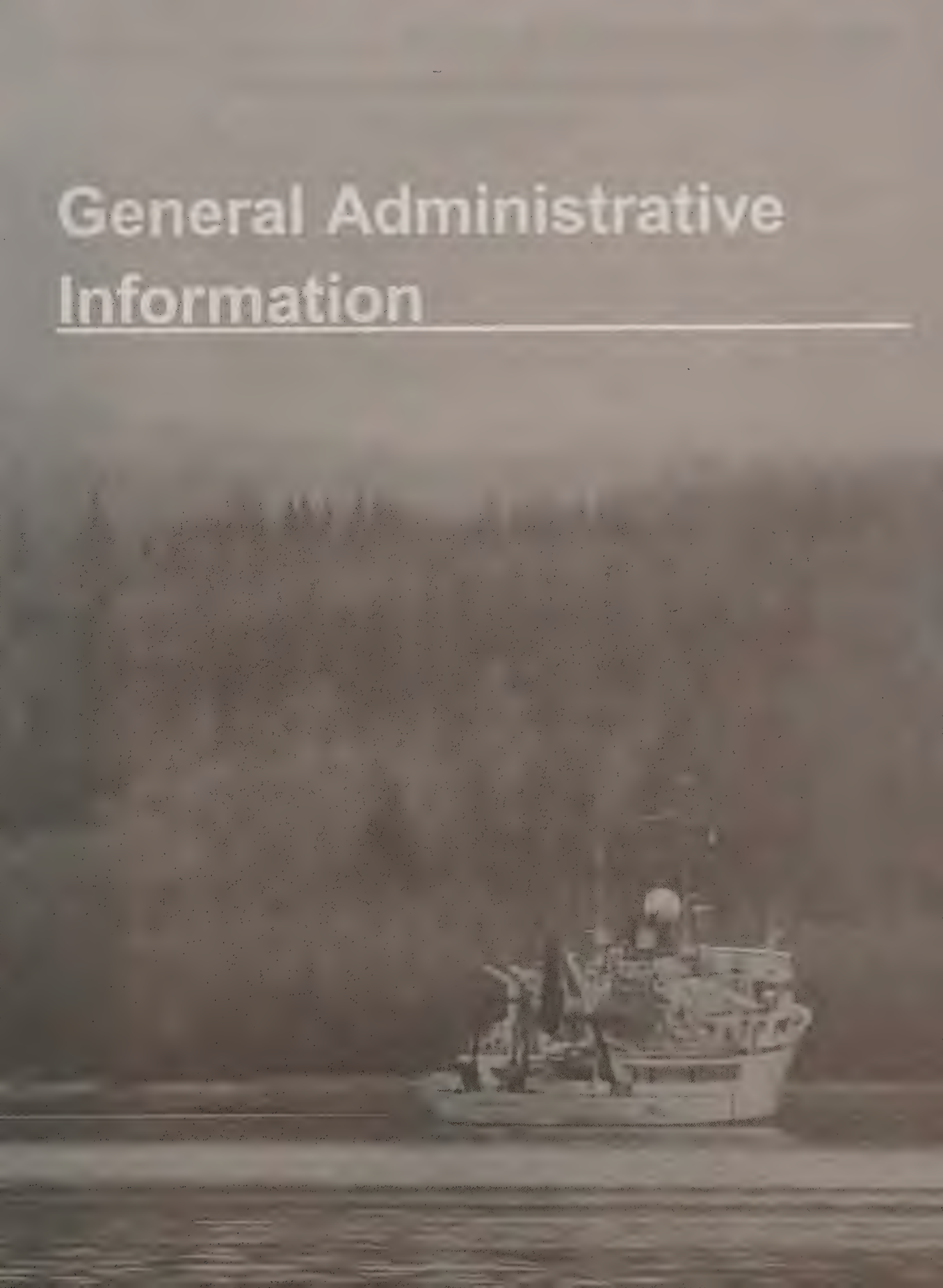
1. Consolidated Atlantic Highly Migratory Species FMP

REGIONAL FISHERY MANAGEMENT COUNCILS

Council	Constituent States	Telephone Number	Executive Directors and Addresses
NEW ENGLAND	(Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut)	978-465-0492 FAX: 978-465-3116	Thomas A. Nies 50 Water St., Mill 2 Newburyport, MA 01950
MID-ATLANTIC	(New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, and North Carolina)	302-674-2331 FAX: 302-674-5399 Toll Free: 877-446-2362	Christopher M. Moore 800 North State Street Suite 201 Dover, DE 19901-3910
SOUTH ATLANTIC	(North Carolina, South Carolina, Georgia, and Florida)	843-571-4366 FAX: 843-769-4520 Toll Free: 866-723-6210	Gregg Waugh 4055 Faber Place Dr., Suite 201 N. Charleston, SC 29405
GULF OF MEXICO	(Texas, Louisiana, Mississippi, Alabama, and Florida)	813-348-1630 FAX: 813-348-1711 Toll Free: 888-833-1844	Doug Gregory 2203 North Lois Ave., Suite 1100 Tampa, FL 33607
CARIBBEAN	(U.S. Virgin Islands and Commonwealth of Puerto Rico)	787-766-5926 FAX: 787-766-6239	Miguel A. Rolón 270 Muñoz Rivera Ave. Suite 401 San Juan, PR 00918
PACIFIC	(California, Washington, Oregon, and Idaho)	503-820-2280 FAX: 503-820-2299 Toll Free: 866-806-7204	Chuck Tracy 7700 NE Ambassador Place Suite 101 Portland, OR 97220
NORTH PACIFIC	(Alaska, Washington, and Oregon)	907-271-2809 FAX: 907-271-2817	David Witherell (acting) 605 West 4th Ave., Suite 306 Anchorage, AK 99501
WESTERN PACIFIC	(Hawaii, American Samoa, Guam, and Commonwealth of the Northern Mariana Islands)	808-522-8220 FAX: 808-522-8226	Kitty M. Simonds 1164 Bishop St. Suite 1400 Honolulu, HI 96813

NOAA FISHERIES
NOAA Fisheries Locations and
Regional Fishery Management Councils
West Coast Region
Regional Offices:
Long Beach, CA
Sacramento, CA
Seattle, WA
Science Center Headquarters:
La Jolla, CA - Southwest
Seattle, WA - Northwest
Science Center Laboratories:
Pacific Grove, CA
Santa Cruz, CA
Newport, OR
Pt. Hammond, OR
Manchester, WA
Mukilteo, WA
Pasco, WA
Pacific Council
Alaska Region
Regional Office: Juneau, AK
Science Center Headquarters:
Seattle, WA (Sand Point)
Science Center Laboratories:
Auke Bay, AK
Kodiak, AK
Lena Point, AK
North Pacific Council
Note: Alaska's actual proportion is much larger in comparison to the lower 48 states.
Western Pacific Council
(Hawaii, Guam, American Samoa, Northern Mariana Islands)
Pacific Islands Region
Regional Office: Honolulu, HI
Science Center Headquarters:
Honolulu, HI
Greater Atlantic Region
Regional Office:
Gloucester, MA
Science Center Headquarters:
Woods Hole, MA
Science Center Laboratories:
Milford, CT
Washington, DC
Orono, ME
Highlands, NJ
Sandy Hook, NJ
Narragansett, RI
New England Council
Mid-Atlantic Council
Headquarters:
Silver Spring, MD
South Atlantic Council
Gulf of Mexico Council
Regional Office:
St. Petersburg, FL
Science Center Headquarters:
Miami, FL
Science Center Laboratories:
Panama City, FL
Pascagoula, MS
Beaufort, NC (shared with NOS)
Galveston, TX
Caribbean Council
Fishery Management Council coastal water jurisdictions

General Administrative Information



UNITED STATES DEPARTMENT OF COMMERCE

14th and Constitution Ave., NW
Washington, DC 20230

MAIL ROUTING CODE		TELEPHONE NUMBER
SEC	**Secretary of Commerce**	
	Wilbur Ross	202-482-2112
A	**Under Secretary of Commerce for Oceans and Atmosphere**	
	Benjamin Friedman (acting)	202-482-3436
	NATIONAL MARINE FISHERIES SERVICE	
	1315 East-West Highway Silver Spring Metro Center #3 (SSMC #3) Silver Spring, MD 20910	
F	**Assistant Administrator for Fisheries --**	
	Chris Oliver	301-427-8000
	Deputy Assistant Administrator for Regulatory Programs -- Samuel D. Rauch, III	301-427-8000
	Deputy Assistant Administrator for Operations -- Brian Pawlak (acting)	301-427-8000
	Director, Scientific Programs & Chief Science Advisor -- Francisco Werner, Ph.D.	301-427-8000
	Director, Office of Policy -- Jennifer Lukens	301-427-8004
	Director, NOAA Aquaculture Program -- Michael Rubino, Ph.D.	301-427-8325
	Chief Information Officer -- Larry Tyminski	301-427-8800
	Director, Office of Communications-- Kate Naughten	301-427-8057
	Equal Employment Opportunity / Diversity Office Natalie Huff	301-427-8025
	Human Capital Management Office -- Denise Fioravante	301-427-8742
F/SI	International Fisheries and Seafood Inspection	
	John Henderschedt	301-427-8350
F/IA1	International Fisheries Affairs Division	301-427-8350
F/IA2	Trade and Stewardship Division	301-427-8350
F/EN	Office of Law Enforcement --	
	Jim Landon	301-427-2300
F/EN1	Enforcement Operations Division	301-427-2300
F/HC	Office of Habitat Conservation --	
	Pat Montanio	301-427-8600
F/HC1	Chesapeake Bay Program Office	410-267-5660
F/HC2	Habitat Protection Division	301-427-8601

UNITED STATES DEPARTMENT OF COMMERCE

Silver Spring, MD 20910

MAIL ROUTING CODE		TELEPHONE NUMBER
F/HC3	**Habitat Restoration Division**	301-427-8602
F/MB	**Office of Management and Budget --**	
	Stuart Merrill (acting)	301-427-8720
F/MB1	Budget Execution Division	301-427-8721
F/MB3	Strategic Planning and Program Evaluation	301-427-8720
F/MB4	Budget Formulation and Planning Division	301-427-8720
F/MB5	Financial Services Division	301-427-8771
F/MB6	Facilities, Safety, and Logistics Division	301-427-8720
F/MB7	Appeals Division	301-427-8720
F/PR	**Office of Protected Resources --**	
	Donna Wieting	301-427-8400
F/PR1	Permits and Conservation Division	301-427-8401
F/PR2	Marine Mammal and Sea Turtle Conservation Division	301-427-8402
F/PR3	Endangered Species Conservation Division	301-427-8403
F/PR4	Planning and Program Coordination Division	301-427-8404
F/PR5	Endangered Species Act Interagency Cooperation Division	301-427-8405
F/SF	**Office of Sustainable Fisheries --**	
	Alan D. Risenhoover	301-427-8500
F/SF1	Atlantic Highly Migratory Species Division	301-427-8503
F/SF3	Domestic Fisheries Division	301-427-8504
F/SF5	Operations and Regulatory Services Division	301-427-8505
F/SF7	Seafood Inspection Laboratory	228-769-8964
F/ST	**Office of Science and Technology --**	
	Ned Cyr, Ph.D.	301-427-8100
F/ST1	Fisheries Statistics Division	301-427-8103
F/ST3	Operations, Management, and Information Division	301-427-8100
F/ST4	Assessment and Monitoring Division	301-427-8102
F/ST5	Economics and Social Analysis Division	301-427-8101
F/ST6	Science Information Division	301-427-8101
F/ST7	Marine Ecosystems Division	301-427-8102
LA11	**Office of Legislative and Intergovernmental Affairs - Fisheries --**	
	Robert Moller	202-482-4981
PAF	**Office of Public Affairs - Fisheries --**	
	John Ewald (acting)	301-427-8003
GCF	**Office of General Counsel - Fisheries and Protected Resource Section**	
	Adam Issenberg	301-713-9670

National Marine Fisheries Service

Regional Facilities

MAIL ROUTING CODE	OFFICE	TELEPHONE AND FAX NUMBER	LOCATION
F/GAR	Greater Atlantic Region 55 Great Republic Dr. Gloucester, MA 01930	978-281-9300 Fax: 978- 281-9207	Gloucester, MA
F/NEC	Northeast Fisheries Science Center 166 Water St. - Rm. 312 Woods Hole, MA 02543	508-495-2000 Fax: 508-495-2258	Woods Hole, MA
	Woods Hole Laboratory 166 Water St. Woods Hole, MA 02543	508-495-2000 Fax: 508-495-2258	Woods Hole, MA
	Narragansett Laboratory 28 Tarzwell Dr. Narragansett, RI 02882	401-782-3200 Fax: 401-782-3201	Narragansett, RI
	Milford Laboratory 212 Rogers Ave. Milford, CT 06460	203-882-6500 Fax: 203-882-6517	Milford, CT
	James J. Howard Marine Science Laboratory 74 Magruder Rd., Sandy Hook Highlands, NJ 07732	732-872-3000 Fax: 732-872-3088	Highlands, NJ
	Orono Maine Field Station 17 Godfey Dr.-Suite 1 Orono, ME 04473	207-866-7322 Fax: 207-866-7342	Orono, ME
F/SER	Southeast Region 263 13th Ave., South St. Petersburg, FL 33701	727-824-5301 Fax: 727-824-5320	St. Petersburg, FL
F/SEC	Southeast Fisheries Science Center 75 Virginia Beach Dr. Miami, FL 33149	305-361-4200 Fax: 305-361-4219	Miami, FL
F/SEC4	Miami Laboratory 75 Virginia Beach Dr. Miami, FL 33149	305-361-4225 Fax: 305-361-4499	Miami, FL
F/SEC5	Mississippi Laboratory 3209 Frederick St., P.O. Drawer 1207 Pascagoula, MS 39567	228-762-4591 Fax: 228-769-9200	Pascagoula, MS
F/SEC6	Panama City Laboratory 3500 Delwood Beach Rd. Panama City, FL 32408	850-234-6541 Fax: 850-235-3559	Panama City, FL
F/SEC7	Galveston Laboratory 4700 Avenue U Galveston, TX 77551	409-766-3500 Fax: 409-766-3508	Galveston, TX
F/SEC9	Beaufort Laboratory 101 Pivers Island Rd. Beaufort, NC 28516	252-728-3595 Fax: 252-728-8784	Beaufort, NC

National Marine Fisheries Service

Regional Facilities

MAIL ROUTING CODE	OFFICE	TELEPHONE AND FAX NUMBER	LOCATION
F/WCR	West Coast Region 7600 Sand Point Way, N.E., Bldg. 1 Seattle, WA 98115	206-526-6150 Fax: 206-526-6426	Seattle, WA
F/WCR1	West Coast Region (Long Beach) 501 West Ocean Blvd., Suite 4200 Long Beach, CA 90802	562-980-4000 Fax: 562-980-4047	Long Beach, CA
F/NWC	Northwest Fisheries Science Center West Bldg. - Rm. 363 2725 Montlake Boulevard, East Seattle, WA 98112	206-860-3200 Fax: 206-860-3217	Seattle, WA
F/SWC	Southwest Fisheries Science Center 8901 La Jolla Shores Dr. La Jolla, CA 92037	858-546-7000 Fax: 858-546-7003	La Jolla, CA
F/SWC3	Fisheries Ecology Division 110 Shaffer Rd. Santa Cruz, CA 95060	831-420-3900 Fax: 831-420-3980	Santa Cruz, CA
F/SWC4	Environmental Research Division 1352 Lighthouse Ave. Pacific Grove, CA 93950	831-648-8515 Fax: 831-648-8440	Pacific Grove, CA
F/AKR	Alaska Region 709 West 9th St., Room 420 P.O. Box 21668 Juneau, AK 99802	907-586-7221 Fax: 907-586-7249	Juneau, AK
F/AKC	Alaska Fisheries Science Center, 7600 Sand Point Way, N.E. Building 4 P.O. Box 15700 Seattle, WA 98115	206-526-4000 Fax: 206-526-4004	Seattle, WA
	Kodiak Laboratory 301 Research Court Kodiak, AK 99615	907-481-1700 Fax: 907-481-1701	Kodiak, AK
F/AKC4	Auke Bay Laboratory 17109 Lena Point Loop Rd. Juneau, AK 99801	907-789-6000 Fax: 907-789-6094	Juneau, AK
F/PIR	Pacific Islands Region NOAA Inouye Regional Center NMFS/PIRO 1845 Wasp Blvd., Building 176 Honolulu, HI 96818	808-725-5000 Fax: 808-725-5215	Honolulu, HI
F/PIC	Pacific Islands Fisheries Science Center NOAA Inouye Regional Center NMFS/PIFSC 1845 Wasp Blvd., Building 176 Honolulu, HI 96818	808-725-5360 Fax: 808-725-5475	Honolulu, HI

NATIONAL MARINE FISHERIES SERVICE

NATIONAL FISHERY STATISTICS OFFICES

CITY	TELEPHONE NUMBER	NAME AND ADDRESS
NEW ENGLAND:		
Portland (2)	207-780-3322	Pamela Thames
	FAX: 207-780-3340	312 Fore Street, Portland, ME 04101
Gloucester (1)	**978-281-9304**	**Gregory R. Power, Fishery Information Section**
	FAX: 978-281-9161	**55 Great Republic Dr., Gloucester, MA 01930-2276**
Gloucester	978-281-9363	Don Mason, Caleb Gilbert
	FAX: 978-281-9372	55 Great Republic Dr., Gloucester, MA 01930-2276
New Bedford	508-717-0210	William Duffy, 53 North Sixth St., Suite 211
	FAX: 508-717-0301	New Bedford, MA 02740-6110
Point Judith (2)	401-783-7797	Walter Anoushian, 83 State St., 2nd Floor,
	FAX: 401-782-2113	P.O. Box 3356, Narragansett, RI 02882-0547
MIDDLE ATLANTIC AND CHESAPEAKE:		
New York	212-620-3405	Robert Santangelo, New York Market News, Social Security Building
	FAX: 631-289-2115	50 Maple Avenue, Patchogue. L.I. NY 11772
E. Hampton, NY (2)	631-324-3569	Victor Vecchio, 62 Newtown Ln #203
	FAX: 631-324-3314	East Hampton, NY 11937
Patchogue	631-475-6988	David McKernan Social Security Bldg., 50 Maple Ave,
	FAX: 631-289-8361	Patchogue, NY 11772
Toms River (2)	732-818-1311	Joanne Pellegrino, 26 Main St. Suite O,
	FAX: 732-349-4319	Toms River, NJ 08753
Cape May	609-884-2113	Josh O'Connor, 1382 Lafayette St.
	FAX: 609-884-4908	Cape May, NJ 08204
Hampton (2)	757-723-3369	Steve Ellis, 1006 N Settlers Landing Rd.,
	FAX: 757-728-3947	P.O. Box 69172, Hampton, VA 23669
SOUTH ATLANTIC AND GULF:		
Miami (1)	305-361-4257	David Gloeckner, 75 Virginia Beach Drive,
	FAX: 305-361-4460	Miami, FL 33149
Manteo	252-473-5734 x 233	David Hoke, 1021 Driftwood Dr., Manteo, NC 27954
Wilmington	910-796-7247	Scott Van Sant, NCSMF 127 Cardinal Dr.
	FAX: 910-350-2018	Wilmington, NC 28405
South Daytona, FL	386-310-7954	Claudia Dennis,1635 South Ridgewood Avenue, Suite 203
	FAX: SAME	South Daytona,FL 32119-8425
Tequesta	561-575-4461	Michelle Gamby, 19100 S.E. Federal Highway,
		Tequesta, FL 33469
Miami (1)	305-361-4290 x 290	Larry Beerkircher, 75 Virginia Beach Dr., Room 201
	FAX: 305-361-4562	Miami, FL 33149
	305-361-4565	Pam Brown-Eyo, 75 Virginia Beach Dr.,
	FAX: 305-361-4460	Miami, FL 33149-1003
Key West	305-294-1921	Eddie Pulido, 301 Simonton St., Rm. 208, P.O. Box 269
	FAX: 305-294-1921	Key West, FL 33040
Naples	239-514-3474	Tom Herbert, 5659 Strand Ct., Suite 107
	FAX: 239-514-3474	Naples, FL 34110

NATIONAL MARINE FISHERIES SERVICE

NATIONAL FISHERY STATISTICS OFFICES

SOUTH ATLANTIC AND GULF:

St. Petersburg	727-551-5793 (Roman) 727-551-5792 (Hourihan) FAX: 727-824-5349	Renee Roman/ Michael Hourihan, 263 13th Avenue, South, St. Petersburg, FL 33701
Panama City	850-234-6541 850-234-6541, x 224 FAX: 850-234-3559	John Brusher / Albert Corey Gabel, 3500 Delwood Beach Rd., Panama City, FL 32401
Pascagoula	228-569-1611 FAX: 228-769-9200	Charles Armstrong, 3209 Frederic St., Pascagoula, MS 39567 (For Mobile, AL contact Charles Armstrong)
New Orleans	504-875-4029 (Anderson) 985-791-8200 (Jensen) FAX: 504-242-0740	Debbie Anderson /Jill Jensen, 401 Whitney Avenue, Suite 203, Gretna, LA 70056
Houma	985-872-3321 FAX: 985-872-3321	Al LeFort, 425 Lafayette St., Rm. 128, Houma, LA 70360 (For Golden Meadow contact Al LeFort)
Lafayette	337-291-2117 FAX: 337-291-2118	Beth Bourgeois, NOAA Fisheries Lab., 646 Cajundome Blvd., Room 220, Lafayette, LA 70506
Galveston	409-766-3515 FAX: 409-766-3543	Keith Roberts, 4700 Avenue U, Bldg. 302, Room 217, Galveston, TX 77551
Freeport	979-233-4551 FAX: 979-233-4551	Michelle Padgett, 200 W. Second Street, Suite 213, P.O.Box 2533 Freeport, TX 77542
Brownsville/ Port Isabel	956-548-2516 FAX: 956-838-1478	James Patterson, 2001 Foust Rd., Brownsville, TX 78521

WEST COAST:

Seattle (1)	206-526-6113 FAX: 206-526-6736	Stephen Freese, Bldg. 1, 7600 Sand Point Way, NE, Seattle, WA 98115-6349

ALASKA :

Juneau (1)	907-586-7010 FAX: 907-586-7465	Jennifer Mondragon, Federal Building, 4th Floor, 709 West 9th St., Room 401, P.O. Box 21668, Juneau, AK 99801

PACIFIC ISLANDS:

Honolulu (1)	808-725-5660 FAX: 808-725-5558	Kimberly Lowe, NMFS/PIFSC/FRMD/FMB, 1845 Wasp Blvd., Building: 176 Rm. 2239, Honolulu, HI 96818

(1) Regional or area headquarters for statistics offices.
(2) State partner coordinator.

The NOAA Library and Information Network (NLIN) provides information and research support to NOAA staff and the public through the NOAA Central Library located in Silver Spring, MD; regional libraries in Miami and Seattle; and a number of field libraries located throughout the United States. The library network libraries have collections that cover the research topics of interest to NOAA—weather and atmospheric sciences, marine fisheries, oceanography, ocean engineering, nautical charting, marine ecology, marine resources, ecosystems, coastal studies, aeronomy, geodesy, cartography, mathematics, and statistics.

The NOAA Library and Information Network Catalog (NOAALINC) shows the physical and digital holdings of the NOAA Library System. Currently, NOAALINC contains records for more than 400,000 items with 5,000 to 10,000 items added each year. Users can access the catalog at: http://library.noaa.gov.

In addition to NOAALINC, the Library and Information Services Division retains digital copies of many NOAA and related agency publications in the NOAA Institutional Repository. Users can search the repository at: https://repository.library.noaa.gov/. The Repository currently contains more than 2,000 records with links to nearly 5,000 documents. The repository recently moved from a pilot stage into an operational product and will add many more records in the coming years.

NOAA personnel may contact their nearest NOAA Library or the NOAA Central Library and arrange to borrow materials not available online. Members of the general public should contact their local libraries to arrange for an inter-library loan of physical materials. Restrictions apply on circulation of certain materials. Digital resources are for the most part freely available without restriction.

NOAA and the public can contact reference staff of the NOAA Central Library via email, phone, fax, or chat.

Email: Library.Reference@noaa.gov.

Phone: 301-713-2600 x157 (between 9:00 am and 4:00 pm Monday through Friday)

Fax: 301-713-4599

Chat: NOAA staff and the public may also chat with a librarian between the hours of 1:00 pm and 4:00 pm EST on Monday through Friday. Access this service from the library homepage http://library.noaa.gov.

OVERVIEW

In an era of increasing pressures on our oceans, the need for data that supports sound science and effective stewardship of our living marine resources has never been greater. The mission of the Fisheries Information System (FIS) Program is to meet this need by working across the fisheries-dependent data community to facilitate access to comprehensive, high-quality, and timely information on the Nation's fisheries.

The FIS Program is a regionally driven collaboration among state and territorial marine fisheries agencies; Fisheries Information Networks; and NOAA Fisheries Headquarters, Regional Offices, and Science Centers. FIS partners work together to prioritize data improvement needs, identify potential solutions, and fund the testing, verification, and implementation of a wide array of projects and initiatives.

From 2013 through 2017, FIS has provided $13.5 million in funding to its partners. Since 2015, FIS funds have been supplemented by contributions from the National Observer Program and the National Catch-Shares Program. These funds are distributed through a competitive process to state and regional teams that work to identify and promote best practices and innovative approaches for managing each step in the data lifecycle. These steps include evaluating and improving how data is collected at its source; ensuring QA/QC throughout information aggregation and analysis; enhancing the way information is managed and shared; and maximizing the value of information for marine stewardship through broader, more efficient, and more accessible dissemination.

In addition to funding pilot studies, FIS convenes and supports Professional Specialty Groups (PSGs) that consist of experts from multiple disciplines and agencies, including NOAA Fisheries Headquarters, Regional Offices, Science Centers, FINs, and state partners. The role of the PSGs is to provide technical expertise about high-priority issues and identify pressing needs and emerging opportunities. Currently, there are three FIS PSGs that focus on Electronic Reporting, Quality Management, and Data Access and Dissemination.

PROJECT HIGHLIGHT

The biological and catch composition data gathered by independent observers on fishing vessels play a critical role in stock assessments and fisheries management decision-making. However, on some vessels — like many North Pacific groundfish and Pacific halibut fisheries vessels — space for human observers is limited and safety is a concern.

Although using electronic monitoring (EM) technology can alleviate safety and space concerns, it often requires a costly, time-consuming manual review of video and still image data. A collaboration between the Alaska Fisheries Science Center (AFSC) and FIS is making progress in overcoming these hurdles.

In 2013, the AFSC and FIS began working on a program to integrate EM technologies into fisheries-dependent data collection as an alternative to on-board observers. The ultimate goal of the AFSC effort is to improve automation of video analysis and effectively integrate EM data into overall catch accounting. The first step is to create a practical tool for measuring halibut bycatch during release from trawler catches.

Chief among the project's objectives is developing software that will eventually automatically detect size and classify fish as they slide by on chutes or conveyor belts. Cameras triggered by sensors capture images that are later sorted by an algorithm into different classes of fish (or manually reviewed in cases of high uncertainty). This identification algorithm, developed and tested using images collected by the chute, will ultimately be implemented on the chute itself for use in the field.

The AFSC piloted the system on a variety of vessels beginning in 2015 and 2016. The chute has been redesigned to be smaller and more portable, with vibration-resistant electronics and hardware incorporated as part of an increasingly robust construction. On the software side, with two years of data, the fish identification algorithm was able to reliably detect the most commonly imaged species with about 94 percent accuracy, and has identified 146 detected classes, including rare species.

The algorithm can now differentiate between species that pose a challenge even for in-person observers, and is now being applied to measuring halibut bycatch as it is sorted from trawl catches.

For more information about the FIS Program visit: http://www.st.nmfs.noaa.gov/data/fis.

SEA GRANT EXTENSION PROGRAM

The Office of Sea Grant is a major program element of the National Oceanic and Atmospheric Administration. The National Sea Grant College Program is funded jointly by the Federal Government and colleges or universities. Sea Grant's Extension Service offers a broad range of information about the Nation's fisheries to recreational and commercial fishermen, fish processors, and other stakeholders. The following program leaders, listed alphabetically by state, can provide information on Sea Grant activities:

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Federal Inspection Marks for Fishery Products

SEAFOOD INSPECTION PROGRAM. NOAA oversees fisheries management in the United States. Under authority of the 1946 Agricultural Marketing Act, the NOAA Seafood Inspection Program provides inspection services for fish, shellfish, and fishery products to the industry. The NOAA Seafood Inspection Program is often referred to as the U.S. Department of Commerce (USDC) Seafood Inspection Program and uses marks and documents bearing the USDC moniker. The NOAA Seafood Inspection Program offers a variety of services which assure compliance with all applicable food regulations. The Program offers sanitation inspection as well as system and process auditing in facilities, on vessels, or other processing establishments in order to be designated as official establishments. Product quality evaluation, grading and certification services are available on a product lot basis. Certain products may be eligible to bear official marks, such as the U.S. Grade A, Processed Under Federal Inspection (PUFI) and Lot Inspection. All edible product forms ranging from whole fish to formulated products, as well as fish meal products used for animal foods, are eligible for inspection and certification. The U.S. Department of Agriculture recommends that USDC inspected fishery products be purchased for its food feeding programs. The **USDC APPROVED ESTABLISHMENTS** provides a listing of products and participants who contract with USDC.

USERS OF INSPECTION SERVICES. The users of the voluntary seafood inspection service include vessel owners, processors, distributors, brokers, retailers, food service operators, exporters, importers, and those who have a financial interest in buying and selling seafood products. These services can be provided nationwide, in U.S. territories, and in foreign countries. The program is a competent authority within the U.S. Government for issuance of health certificates for export of fish and fishery products to foreign countries. The official government forms and certificates issued by USDC inspectors are legal documents recognized in any U.S. court.

USDC INSPECTION MARKS. These marks designate the level and the type of inspection performed by the federal inspector. The marks can be used in advertising and labeling under the guidelines provided by the Seafood Inspection Program and in accordance with federal and state regulations regarding advertising and labeling. Products bearing the USDC official marks have been certified as being safe, wholesome, and properly labeled.

US GRADE A MARK. The U.S. GRADE A mark signifies that a product has been processed under federal inspection in a sanitarily approved facility and meets the established level of quality of an existing U.S. grade standard. The U.S. Grade A mark indicates that the product is of high quality, uniform in size, practically free from blemishes and defects, in excellent condition and possessing good flavor and odor.

PROCESSED UNDER FEDERAL INSPECTION MARK. The PUFI mark or statement signifies that the product is certified to be safe, wholesome and properly labeled, conforms to quality and other criteria in the approved specification, and has been officially inspected in a participating establishment under Federal inspection.

LOT INSPECTED MARK. The USDC Lot Inspected mark identifies products that were officially sampled and inspected to conform to an approved specification or criteria. This mark may be used on retail packages and packaging provided the label and specification are approved.

RETAIL MARK. Participants qualify to utilize the Retail Mark by contracting for sanitation services and associated product evaluation. Use of the retail mark gives retail firms the opportunity to advertise on banners, logos, and/or menus that their facility is recognized by the USDC for proper sanitation and handling of fishery products.

USDC HACCP MARK. The USDC HACCP-based service is available to all interested parties on a fee-for-service basis. Label approval, record keeping and analytical testing are program requirements. An industry USDC-certified employee trained in HACCP principles is also required for each facility/site in the program. Compliance ratings determine frequency of official visits. Benefits to participants include increased controls through a more scientific approach, use of established marks, increased efficiency of federal inspection personnel, and enhanced consumer confidence. The USDC has made available a HACCP mark and a "banner" to distinguish products that have been produced under the HACCP-based program. The HACCP mark may be used alone or in conjunction with existing grade marks to distinguish that the product was produced under the HACCP Quality Management Program. Participants receive the marketing benefits of using the HACCP mark on brochures, banners, and company labels.

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